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GENETIC RESOURCES OF CACAO

A catalogue of the CATIE collection



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TROPICAL AGRICULTURAL RESEARCH AND TRAINING CENTER, CATIE

Plant Genetic Resources Unit

Turrialba, Costa Rica, 1981



Catalogue of data from a systematic description of the collection of cacao (*Theobroma cacao* L.) and some related species, maintained at CATIE.

Contributors

Coordinator and author: Jan Engels

Data collection:

Rigoberto Bonilla

Rodolfo Sánchez Jorge Morera Kees Reinink

Leon van Beuningen

Data processing:

Heather Palmer Teresa Washington

Jorge Morera

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Foreword

The Tropical Agricultural Research and Training Center, CATIE, has a long history in cacao breeding and has established a comprehensive collection of cultivated clones, breeding lines and populations, as well as wild species related to *Theobroma cacao*.

With technical and financial support of the Federal Republic of Germany, administered by the Agency for Technical Cooperation (GTZ), Ltd., a Plant Genetic Resources Project was started by CATIE. The main objective of this project is the conservation of indigenous Central American germplasm. To reach this goal, an infrastructure was established for seed storage, for preservation of living collections and for data management.

An important additional activity of the unit is the promotion of the use of its germplasm. One method is the publication of specific information on each of the clones, including taxonomic, agronomic and genetic characteristics. This catalogue is an attempt to distribute such information, accumulated during the systematic description of the cacao collection at CATIE over several years, and to assist potential users in obtaining the material they need.

Since it was not always possible to trace mistakes made in the past, or to decide which of a mixture of trees found in one row of an accession belonged to the true clone, it is very likely that some descriptions do not correspond with the recorded accession name. For some clones notes were included to indicate doubts about the names. Comments are welcomed from the readers of this catalogue. At CATIE the descriptive work continues on the remaining clones, including some progeny populations of Nicaraguan "criollos". It is planned to publish these results in the future as a supplement.

Introduction

The collection of cacao germplasm at CATIE comprises almost 500 accessions which were collected, introduced to or bred at CATIE over the last 30 years or more. Many scientific studies were published on material from this collection. However, the lack of a publication containing details of each of the accessions is the reason that this valuable germplasm is used mainly within CATIE. In 1967 Enríquez and Soria published a cultivar register of a small fraction of the cacao collection. Later, the compilation of an international catalogue was initiated but has not yet been published.

The present catalogue contains information on 294 clones, 8 related species and on one hybrid. Limited information on 119 clones is included at the end of the catalogue. Since the data was collected only in Turrialba, detailed information on soil and climate are given to allow comparisons with data from other sites. The descriptors which have been used are defined as precisely as possible, with information on the instruments employed, the type of plant material, etc. The sampling method for each of the characteristics is mentioned. Since the evaluation for disease resistance was outside the scope of the project activities, information was compiled from the literature, with citations. Information on self-compatibility of the clones was provided by observations made at CATIE and by literature accounts. Information on the combining ability (specific or general) of a clone is included in the catalogue under 'notes'. The collected data for each of the clones make up the main part of the catalogue and are presented as a copy of the computer listing. Drawings of the longitudinal and transverse sections of a representative fruit of each of the clones are included as illustrations of the foregoing data. The same scale was used for all the drawings. The information on

the related species and hybrids is presented partly as drawings and partly as data. The appendices are included to help the reader/user in selecting the desired material.

Requests for seeds or vegetative material should be sent to the Head of the Plant Genetic Resources Unit, CATIE, Turrialba, Costa Rica. Small quantities of seeds can be delivered free of charge while the requested material is in production. In case of interest in larger quantities or special hybrids, a formal request should be sent to the same address. If special forms are necessary to import the genetic material into the country, they should accompany the request.

Details of the collection and its environment

The collection of cacao clones and its planting in the "Cabiria" area of CATIE estate was initiated in 1952 with UF clones. In 1960 the CC-collection was started and in 1967 the first Brazilian clones were introduced. Each clone is represented by 10 or fewer trees planted in a single row. The distance between rows is 3 m and between trees within rows 2 m. In some parts of the collection the distances are 2.20 m between rows and between trees. All the germplasm described was propagated clonally by root cuttings, grafting or marcotting and then planted in the field.

Fertilization: Since 1971 the collection has been fertilized regularly with the formula N-P-K-Mg/Ca (18-10-6-5) four times a year (January/February, April/May, July/August, and October/November) at 150 g per tree per application.

Shade: An almost closed cover of shade trees, *Erythrina poepiggiana* and *Inga* spp., is present in

nearly all the collection. The trees receive up to two severe prunings a year in February/March and October/November. The distance between shade trees is approximately 12 x 12 m.

Pruning: Twice a year (February/March and October/November) the cacao trees are moderately pruned.

Drainage: The relatively flat area of approximately 11 has is well drained with a network of open channels.

Weeds: The weeds are chemically controlled by applying Gramoxone and 2,4-D two to three times a year, depending on the weed growth.

Fungal diseases: The most serious diseases are Phytophthora palmivora, Colletotrichum gloesporioides, and, sporadically, Ceratocystis fimbriata. The losses caused by Phytophthora in Turrialba are estimated at 5-10% of the production; 4 to 6 times a year the trees are treated with Kocide-101 or Cupravit, applying approximately 2.5 kg/ha. During the Monilia roreri epidemic in the second half of 1980 and the beginning of 1981, 5 kg/ha were applied every ten days.

Pests: When any insect reached the state of being a pest, BHC (25%) was applied together with the fungicide. The main pest is *Monalonion bracaconoides*. Occasionally thrips appeared, in general in combination with *Colletotrichum gloesporioides* and caused the so-called "die-back" Dithane was used as a fungicide.

Animals: Damage to the fruits caused by birds and squirrels frequently give rise to secondary infections, such as *Thielaviopsis paradoxa*. The

disease was treated by the regular applications of fungicide, four to six times a year.

Harvest: The majority of the clones were harvested weekly. A few clones were chosen for commercial hybrid seed production, such as UF-613 and SCA-6. If there were insufficient fruits of these clones for the description, fruits were used from trees of the same clones planted elsewhere on the CATIE estate.

Soil data

In Table 1 are the results of 16 soil samples taken randomly throughout the collection at a depth of 0-30 cm in May 1981.

Climatic data

The climatic data of 1978, 1979, 1980, and long-term average data are in Tables 2-5. They were collected in the meteorological station at CATIE, which is a few hundred meters south of the cacao collection.

Descriptors used in the systematic description

The first step in putting together characteristics or descriptors of the cacao plant was a search through the literature for any kind of descriptors used previously (Engels, 1977). The next step was an evaluation of these descriptors using the data from several clones. The ones with no variation between clones, a very high variation within clones or which were very complicated to measure/observe were discarded. A first selection of descrip-

Table 1. Mean soil data analysed* from 16 random samples taken from 0 to 30 cm depth.

=======================================	Mean	Range
pH H ₂ 0	5.3	5.0 — 5.5
P μg/ml	14.6	5.5 - 41.0
N of total sample	0.37	0.32 - 0.43
Ca meq 100 g of soil	6.9	4.9 - 10.6
Mg meq/100 g of soil	1.9	1.2 - 3.9
K meq/100 g of soil	0.25	0.11 - 0.52
Al meq/100 g of soil (acid. extr.)	0.7	0.2 - 1.4
Cu μg/ml	23.0	14.1 - 36.0
Zn μg/ml	7.3	3.8 - 11.4
Mn μg/ml	12.3	6.2 - 21.1
Fe µg/ml	114	86 – 126
% of sand	19	14 – 26
% of silt	35	32 - 40
% of clay	44	42 – 52
Overall texture	clay	

Analyses were done by the Soil Laboratory of CATIE, using methods described in Diaz-Romeu and Hunter (1978).

tors of interest to breeders, taxonomists, agronomists, and others was published by Engels et al. (1980). In 1981, when the description was practically finished, IBPGR published a descriptor list for cacao, similar to the first CATIE selection.

It was decided to include descriptors of little agronomic use, because data was available. The descriptors, as they are presented in this catalogue, are ordered by descending agronomic/taxonomic importance per organ. Detailed information on how each of them was measured or observed is given below in the definitions. In the next paragraph the coding of the phenotypical expressions of the descriptors —the descriptor states— is discussed.

CODING OF THE DESCRIPTORS

Where descriptor states present real measurements, e.g., pod length in mm, the data are given as the mean of all the measurements of each clone. The coefficient of variability (CV) is also included to show the actual variation within each clone.

If an expression of a descriptor is not exactly measurable (e.g., rugosity of the pod surface) or is highly variable (e.g., production of a clone), the phenotypical expression is coded on a scale from 1 to 9. On this scale '1' always stands for the lowest or weakest expression of a characteristic and '9' for the highest or strongest. Such a scale does not necessarily mean that all the classes have to be

Table 2. Summary of meteorological data from 1978, collected at the Meteorological Station at CATIE.

		TE	MPERATU (°C)	JRE		R	RAINFALL (mm)			RADIATION (Cal/cm ² /month)	RELATIVE HUMIDITY (%)	EVAPORATION (mm)
MONTH	Avec	rage min.	Meen	Abe mex.	olute min.	Monthly total	Days of 0.1 mm or more	Mex.in 24 hrs.	Monthly average	Monthly average	Deity average	Tank A Monthly average
Jan.	26.1	16.1	21.1	28.4	12.0	62.6	14	38.6	168.5	14937	86.7	102.3
Feb.	25.4	17.6	21.5	28.4	15.0	267.1	20	79.4	124.5	10033	90.6	82.8
March	26.8			14.5	85.5	18	25.6	131.4	12337	88.4	111.5	
April	27.7	17.6	22.6	30.0	13.2	50.5	13	24.3	168.0	13810	85.1	131.0
May	28.6	19.1	23.8	31.6	16.3	233.1	23	53.0	148.2	12732	89.4	119.5
June	27.4	18.6	23.0	29.2	16.4	252.7	25	37.2	126.0	11370	91.3	99.2
July	27.5	18.6	23.0	28.7	16.4	244.1	27	33.4	129.5	11160	90.6	93.2
August	27.3	18.7	23.0	28.9	17.0	173.3	25	17.3	137.5	12222	90.6	99.9
Sept.	27.5	18.6	23.0	29.0	17.2	221.7	26	41.7	133.6	12228	90.3	100.0
Oct.	27.4	18.6	23.0	28.4	17.0	234.8	23	30.5	148.1	12561	90.2	105.2
Nov.	27.0	18.8	22.9	29.0	16.0	312.3	22	59.8	146.6	11082	92.0	95.1
Dec.	26.9	17.0	22.0	28.6	13.6	150.8	14	85.2	174.4	11682	86.6	100.3
TOTAL	_			_	2288.5	250	_	1736.3	146154	-	1240.0	
Average	27.1	18.1	22.6	_	_	190.7	90.7 20.8 -		144.7	12180	89.3	103.3

Position of the Meteorological Station: Lat. 9° 53' N; Long. 83° 38'. Elevation: 602 m

Table 3. Summary of the meteorological data from 1979, collected at the Meteorological Station at CATIE.

	TEMPERATURE (°C)					R	AINFALL		SUNSHINE (hours)	RADIATION (Cal/cm ² /month)	RELATIVE HUMIDITY (%)	EVAPORATION
	Average mex. min.		Meen	Abec mex.	olute min.	Monthly total	Days of 0.1 mm or more	Mex. in 24 hrs.	Monthly sverage	Monthly average	Daily average	Tank A Monthly average
Jan.	26.5	15.9	21.2	29.9	12.0	42.7	10	14.4	194.7	12069	83.9	109.8
Feb.	26.3			13.5	47.4	14	11.1	143.8	10749	87.5	100.9	
March	27.6			14.5	51.0	9	22.9	186.9	13842	85.1	138.1	
April	26.9	19.5	23.2	.2 29.7 17.0		373.5	373.5 26 65.4		90.9	10200	92.5	82.6
May	28.2	19.2	23.7	29.5	17.0	205.0	23	47.0	162.3	13431	89.2	125.5
June	27.8	19.2	23.5	30.4	17.8	212.1	25	28.1	130.5	11625	90.2	100.7
July	27.8	19.0	23.4	30.4	16.8	124.6	22	20.6	130.3	11406	89.4	101.4
August	27.7	19.2	23.4	29.9	17.7	213.2	26	28.5	137.8	12149	90.6	104.2
Sept.	28.4	19.1	23.8	29.6	16.0	223.1	23	51.8	128.4	11970	88.8	107.2
Oct.	28.1	19.3	23.7	29.4	17.6	140.8	22	21.4	164.1	11883	88.9	108.2
Nov.	26.4	18.7	22.6	29.5	15.0	154.3	21	19.8	113.4	9491	92.0	78.6
Dec.	25.9	17.8	21.8	29.0	13.8	189.9	21	33.0	129.2	10164	90.0	81.6
TOTAL	-			-	1977.6	242	_	1712.3	128979	_	1238.8	
Average	27.3 18.4 22.8			_	164.8	20.2	-	142.7	11582	89.0	103.2	

Table 4. Summary of the meteorological data from 1980, collected at the Meteorological Station at CATIE.

		TE	MPERATU (°C)	JRE		R	AINFALL (mm)		SUNSHINE (hours)	RADIATION (Cal/cm ² /month)	RELATIVE HUMIDITY (%)	EVAPORATION (mm)
MONTH	Aver	age min.	Meen	Abec mex.	ilute min.	Monthly total	Days of 0.1 mm or more	Mex. in 24 hrs.	Monthly average	Monthly average	Deily average	Tank A Monthly average
Jan.	26.2	17.5	21.8	29.0	15.0	143.6	16	38.2	160.7	11340	88.0	99.5
Feb.	25.5			13.0	191.7	17	60.2	143.5	11080	87.5	93.0	
March	27.8	17.4	22.6 30.0 14.0 23.1 29.8 15.1		14.0	16.8	12	5.9	174.5	13821	85.5	132.4
April	27.7	18.5	23.1	29.8 15.1		96.1	10	24.6	157.9	12960	81.8	126.3
May	28.5	19.4	24.0	30.5 17.5		220.4	21	64.9	169.2	13620	85.4	124.9
June	27.8	19.7	23.8			311.7	25	35.6	97.7	9777	88.7	84.8
July	27.8	19.2	23.5	30.0	17.2	182.7	22	44.6	147.1	12099	87.2	103.9
August	28.1	18.8	23.4	29.3	17.0	184.1	23	29.8	152.6	13638	87.1	112.5
Sept.	28.1	18.9	23.5	29.8	16.5	273.0	24	45.7	128.6	11922	87.3	101.5
Oct.	27.8	18.8	23.3	29.0	19.0	132.5	21	19.0	143.5	11709	88.6	99.5
Nov.	26.7	18.7	22.7	28.7	17.0	282.0	24	52.9	108.9	10423	90.5	73.9
Dec.	24.7	17.4	21.0	27.5	15.0	443.8	24	147.5	82.5	8586	89.7	56.0
TOTAL	_			_	2478.4	239	-	1666.7	140975	_	1208.2	
Average	27.2	27.2 14.8 22.8		_	206.5	19.9	_	138.9	11748	87.3	100.7	

Table 5. Summary of the meteorological data from 1944–1979, collected at the Meteorological Station at CATIE.

		TE	MPERAT	URE		R	AINFALL		SUNSHINE	RADIATIO	N RELATI		ATION
MONTH			(°C)				(mm)		(hours)	(Cel/cm ² /mo		I Y (mm)
	Average mex. m		Meen	Abso mex.	ilute min.	Monthly average	Average days with 0.1 mm or more	h Max. 24 hrs.	Monthly average	Monthly average	Daily average	Tank Mont aver	thly
Jan.	25.7	16.2	21.0	31.0	10.0	172.7	18.5	164.9	146.4	12041	86.8	83	3.8
Feb.	26.0	16.2	21.1	30.0	10.4	136.1	15.2	247.5	145.1	145.1 12088		89	5.8
March	26.9			10.5	68.0	13.5	85.4	159.5	14596	84.6	116	3.3	
April	27.3 17.6 22.4 31.7 11.8		11.8	133.6	15.2	287.9	153.2	14420	85.0	1 12	2.6		
May	27.4			13.5	218.5	23.1	67.2	147.2	14387	86.9	107	7.8	
June	27.8	18.6			15.2	287.9	21.8	85.5	125.5	12584	88.8	89	9.1
July	27.1	18.4	22.8	30.6	14.1	178.7	25.4	113.4	115.6	12597	90.0	79	9.4
August	27.4	18.3	22.8	30.2	14.9	240.8	24.3	126.7	133.7	13967	88.9	86	6.3
Sept.	27.8	18.2	23.0	30.8	14.8	252.1	22.6	110.5	129.8	13959	88.2	92	2.8
Oct.	27.6	18.2	22.9	30.8	14.5	244.7	22.0	109.2	120.8	14175	88.7	96	B.0
Nov.	26.6	18.0	22.3	30.1	13.7	277.5	22.1	115.3	128.2	11985	89.5	79	9.0
Dec.	25.9	16.9	21.4	29.9	10.6	329.7	21.5	288.3	135.8	12004	88.8	76	6.6
TOTAL	_	_	_	_	_	2640.3	245.2	-	1660.8	158803		1107	7.5
Average	27.0	17.6	22.3	-	_	-	20.4	_	138.4	13234	87.6	92	2.3
Observatio	ons in the	period:	Tempe Rainfa		959-79 944-79	(21 years) (36 years)		hine: ation:	1959-79 (21 1965-79	•	Rel. humidity: Evaporation:		years) ! years)

^{*} In the summaries from 1964 to 1977, evaporation was from a plate in the sun. From 1978 on, it was from Tank A.

used. Table 6 shows the discrimination possible with from two (example VII) to nine (example I) classes (Seidewitz, 1974). The even numbers are generally used if the observation does not fit well in a 'major' class. In the definitions of the descriptors only the classes 3, 5 and 7 (example IV in Table 6) are presented, but all the possibilities (example I) are available for use.

If the descriptor states are registered only as

'present' or 'absent' (e.g., presence of whitecoloured cotyledons), the characters

0 = absence of the expression

+ = presence of the expression

are used. A blank indicates missing or non-existent data.

Some qualitative descriptors are always regis-

Table 6. Examples of numerical codes with continuously expressed characteristics.

Example					CODES				
No.	1	2	3	4	5	6	7	8	9
ı	very low	very low to low	low	low to inter- mediate	inter- mediate	inter- mediate to high	high	high to very high	very high
11	very	_	low	-	inter- mediate	_	high	_	very high
III	-	– low – i		low to inter- mediate	inter- – m		_	high to very high	-
IV	_	_	low	-	inter- mediate	_	high	_	_
V	_	_	low	_	_	-	high	_	_
VI	very low	_	_	_	inter- mediate	_	_	_	very high
VII	very		_	-	_	-	_	very high	

tered with the help of a colour chart (e.g., Methuen handbook of colour, Kornerup and Wanscher, 1978) and expressed in the code given by this colour chart. In appendix B a list is presented of all the codes which were used and their meanings.

Reactions of the clones to diseases are expressed in non-numeric grades (see paragraph b 8 of this chapter).

DEFINITIONS OF THE DESCRIPTORS

General descriptors

Accession number. This number, assigned by the Plant Genetic Resources Unit of CATIE, is the unique identifier for each accession. Once assigned, this number can never be reassigned, even when an accession becomes extinct. In the catalogue the letters TUR which precede each accession number are omitted to save space. In the text 'accession' and 'clone' are used as synonyms.

Field plot. The position of an accession in a certain plot in the collection at CATIE is indicated by a letter code.

Row number. The number(s) indicate(s) in which row(s) the accession is planted.

Tree number. The actual number of trees comprising the accession.

Accession name. The name for the accession that was given by the 'original' experimental station. These names are generally alpha-numeric or alphabetic identifiers.

Synonyms. These include any previous identification other than the current name, collection

number, newly assigned station name or other number and/or vernacular name(s) frequently used as identifiers.

Country of origin. The full name of the country in which a particular accession was collected, selected or bred. If the country of origin was unrecorded, the accession is reintroduced with origin given as CATIE, Costa Rica.

Political subdivision of origin. The name representing the political or administrative subdivision of the country in which a particular accession was collected, selected or bred. Examples are the names of a state, province or county.

Locality of origin. The specific name of the town, village or area in which the accession was collected. In some cases a short description of the exact site is given.

Collecting source. The type of 'habitat' where the accession was collected or from where it was obtained is specified as follows:

- 1 = natural habitat
- 2 = farm
- 3 = experimental station

Name of collecting source. The name of the farm, experimental station or, if applicable, the name of the natural habitat.

Type of pollination. The code refers to the way in which an accession is derived from an ancestral population. This can be by:

- 1 = natural or open pollination
- 2 = artificial pollination

Pedigree. A register recording the lines of ancestors. In general either the mother or both parents of a controlled cross are given and the accession is a selection from the progeny.

Year of description. The year is registered in which the systematic description was prepared. Since all the parts of a certain clone were not always described in the same year, this descriptor is recorded for leaf, flower and fruit characteristics.

Month of description. The month of description is recorded, since seasonal weather conditions may influence the phenotypic expression of certain characteristics. In general, the recorded month is that in which the majority of the observations/ measurements were made.

Production descriptors

Fruit index. The number of fruits of a given accession that is needed to obtain 1 kg of dry cocoa. This number is calculated by dividing 1000 by the product of seed number per pod and mean dry seed weight.

Seed index. The average dry seed weight (in g) of a clone, measured from 15 seeds from each of 10 fruits.

Productivity. The productivity of a clone is expressed as the number of fruits per tree that is produced within a certain period. This estimate was confirmed by later observations in the field.

- 1 = very low ≈ 40 fruits harvested over three years
- 3 = low
- 5 = intermediate ≈ 40 fruits obtained from

- 3-4 harvests over one year
- 7 = high
- 9 = very high ≈ 40 fruits harvested at one time

Maximum number of seeds. The highest number of seeds per fruit is recorded, from observations on 40 fruits per clone. There exists a high correlation between values of this descriptor and the number of ovules per ovary.

Seed descriptor

Data are taken from peeled seeds. The seeds are chosen at random in each fruit.

Wet weight of seed in g, mean and CV*. The mean weight of fresh seeds and the CV are calculated, based on 15 seeds from each of 10 fruits per clone.

Dry weight of seed in g, mean and CV. Seeds, from the same sample taken for wet weight, are dried in an oven for 1.5 hours at 130°C, cooled in a desiccator and weighed on an analytical balance. (This descriptor is repeated here for convenience of the reader).

Ratio of mean dry/mean wet seed weight. This result is obtained by division of the mean dry seed weight and mean wet seed weight and is an indication of the loss in weight caused by drying the cacao seed.

Number of seeds per fruit, mean and CV. Although seed-setting is a characteristic which is heavily influenced by environment, the mean seed

Coefficient of variation.

number per fruit is economically very important and varies greatly between clones. For these reasons the average number of seeds in 40 fruits is recorded.

Ratio of mean number of seeds per fruit/maximum seed number. This ratio indicates how efficient is a certain clone in producing seeds. It is of course influenced by compatibility, weather conditions during flowering, etc. The ratio is obtained from the same samples as used for the measurements of the two component descriptors.

Ratio of mean number of seeds per fruit/mean total fruit weight. The ratio is an indicator of the efficiency of production of cacao (seeds) per fruit. The higher the ratio the more effective is the clone in producing seeds. The same samples are used as for the component descriptors.

Seed length in mm, mean and CV. The mean and CV of the maximum length of five seeds from each of 20 fruits is measured with a vernier caliper.

Ratio of mean seed width/mean seed length. Is calculated with the results of seed length and width.

Seed width in mm, mean and CV. Mean and CV of maximum seed width are determined from the same sample used for seed length.

Seed thickness in mm, mean and CV. Mean and CV of the maximum seed thickness are calculated from the same sample used for seed length and width.

Cotyledon colour. Although this trait is of relatively little value, because of cross pollination, the presence or absence of the different colours per

clone are presented. In this way a rough indication can be obtained of the most recessive cotyledon colour, if there is self-pollination (cotyledon colour is a xenia). The data were taken from the same sample as in seed length; except that, if there was variation, all the seeds from each of 10 fruits were examined. The following classes were used: white, greyish white, light purple (including intermediate purple), and purple spotted.

Fruit descriptors

Fruits of 4-5 mor. ths old are used as unripe fruits. Ripe fruits are those which are physiologically ripe as shown by changes in colour. A sample size of only five fruits is used for assessment of pod wall thickness in some of the clones; this resulted in general in a much lower CV than was obtained with a sample of 35 fruits.

The Methuen handbook of colour is used to determine the colours, which are presented as a code.

If only three or four classes (0, 3, 5, and 7) are given, this does not exclude the use of the other six classes (1, 2, 4, 6, 8, and 9).

Fruit length in mm, mean and CV. Thirty-five (or 40) fruits are measured with a vernier caliper to determine mean and CV for each clone.

Fruit width in mm, mean and CV. The maximum width is measured of the first 20 fruits from the sample used for fruit length.

Ratio of mean fruit width/mean fruit length. The means from each of the two previous descriptors are used to calculate the ratio.

Ratio of the mean distance base to widest

part/mean fruit length. The distance from the base to the widest part is measured on each of 10 fruits. The mean ratio was calculated by dividing the two means obtained from the same sample.

Fruit weight in g, mean and CV. The average fruit weight of the whole fruit and its coefficient of variability is calculated from the same sample as for fruit length.

Fruit wall thickness at ridge in mm, mean and CV. The fruit wall thickness at a randomly chosen ridge on each of the 35 or 40 fruits is measured with a vernier caliper; the fruits are transversally sectioned and the soft endocarp tissue removed to exclude the influence of ripeness of the fruit.

Fruit wall thickness at secondary furrow in mm, mean and CV. The furrow within a pair of ridges which are situated above a carpel is measured in the same fruits which were sampled for the previous descriptor.

Basic fruit surface colour. Green is the base colour in unripe fruits, although the intensity can vary. The observed colours are presented as codes which are interpreted in Appendix B.

Anthocyanin intensity in ridges. The intensity of anthocyanin in the ridges of unripe fruits is expressed as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Anthocyanin intensity in primary furrows. The intensity of anthocyanin in the furrows of unripe fruits is expressed as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Anthocyanin in ripe fruits, ridges and furrows. The code representing absence (= yellow fruit) or presence (= reddish fruit) in different intensities of the anthocyanin in ripe fruits is expressed as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Ridge pair separation. The degree of separation between a pair of ridges is expressed as a mean ratio of the distances measured between ridges within a pair (distances 'a' in drawing) and the distances between the ridges of two different pairs (distances 'b' in drawing). This mean ratio is calculated in one representative fruit per clone, sectioned at the widest point and based on five pairs of measurements (Figure 1).

Primary furrow depth. A code for the depth of the furrow between two pairs of ridges (Figure 2) is expressed as:

3 = superficial

5 = intermediate

7 = deep

Fruit surface rugosity. These codes refer to the appearance of protuberances on the fruit surface:

0 = absence

3 = slight

5 = intermediate

7 = intense

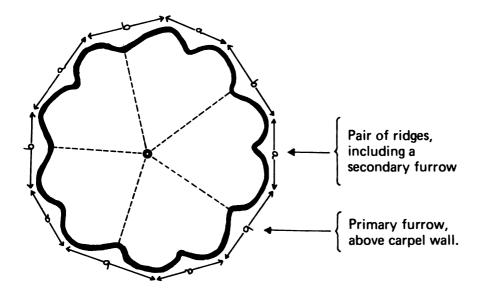


Fig. 1 Ridge pair separation

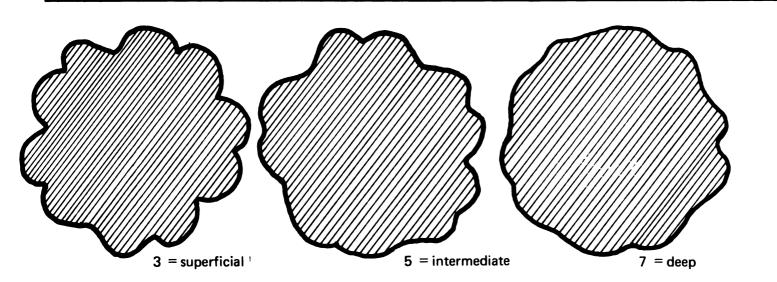
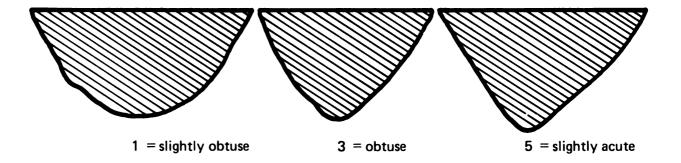


Fig. 2. Primary furrow depth



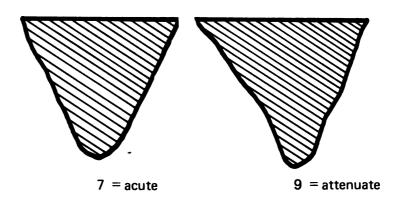
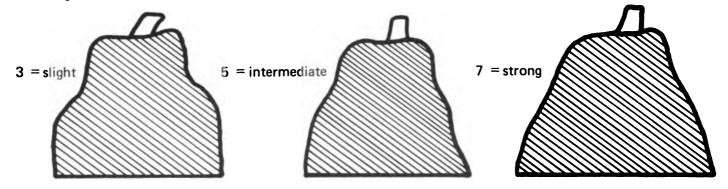


Fig. 3. Fruit apex form

Fig. 4. Basal constriction



Fruit apex form. The form of the apical part of the ripe fruit (Figure 3) is expressed as:

0 = round

1 = slightly obtuse

3 = obtuse

5 = slightly acute

7 = acute

9 = attenuate

Basal constriction. The code representing the constriction or 'bottle neck' of the basal part of the ripe fruit (Figure 4) is expressed as:

0 = absent

3 = slight

5 = intermediate

7 = strong

Mesocarp hardness. A code representing the hardness of the mesocarp of ripe fruits. The force required to cut the mesocarp with a kitchen knife was subjectively classified as:

3 = soft

5 = intermediate

7 = hard

Flower descriptors

Data are taken from one to four randomlyselected recently-opened flowers of each of five trees. Flowers exposed directly to sunlight are not collected. All the measurements of the flower organs are done under a stereo microscope. These organs are arranged on a glass slide in a drop of glycerol and carefully flattened under a cover slip. If more than one organ per flower is available, only one is chosen at random per flower. (See also Figures 5 and 6).

Style length in mm, mean and CV. The mean style length and CV of two flowers from each of five trees are presented.

Ovary length in mm, mean and CV. The ovaries of four flowers from each of five trees are measured.

Ovary width in mm, mean and CV. The width at the widest part of the ovaries of four flowers from each of five trees is measured.

Staminode length in mm, mean and CV. The length of the staminodes (one per flower) of two flowers from each of five trees is measured.

Sepal length in mm, mean and CV. The length of the sepals (one per flower) of two flowers from each of five trees is measured.

Sepal width in mm, mean and CV. The width at the widest part of the sepals is measured of four flowers (one sepal per flower) from each of five trees.

Petal length in mm, mean and CV. The length of the whole petal ligule, including the cup, is measured in three flowers from each of five trees.

Ligule width in mm, mean and CV. The width at the widest point of the superior part of the petal ligule is measured in the same sample as used for ligule length.

Anthocyanin intensity in ligule. The intensity of the pigmentation in the upper part of the petal

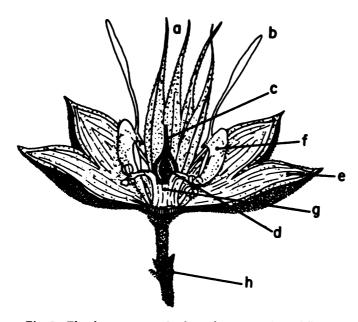


Fig. 5. Theobroma cacao L., lateral cross-section of flower: a. staminode; b. ligule (petal); c. style; d. ovary; e. sepal; f. cup (petal); g. filament; h. peduncle. (10 x)

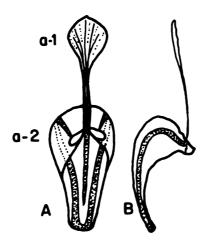


Fig. 6. Theobroma cacao L.; A. inside view of petal; a.1. ligule; a.2. cup; B. lateral view of petal.

ligule is observed on at least five trees and coded as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Anthocyanin intensity in stamen filament. The intensity of the pigmentation in the stamen filaments of at least five trees is coded as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Sepal colour. The colour of the outer part of the sepals of at least five trees is determined with the Methuen colour chart and coded as in Appendix B.

Anthocyanin intensity in upper ovary part. The intensity of the pigmentation in the upper half of the ovary of flowers from at least five trees is coded as:

0 = absent

3 = slight

5 = intermediate

7 = intense

Peduncle colour. The colour of the main part of the peduncle (without base) is determined from the Methuen colour chart and coded as in Appendix B.

Leaf descriptor

New flush colour. The colour of the new flush

(leaves of about five cm in length) was determined on several trees of each clone, with the Methuen handbook of colours, and coded as in Appendix B. Phytophthora palmivora Crinipellis perniciosa Monilia roreri Ceratocystis fimbriata

Self-compatibility

The information on compatibility of the clones was partly determined experimentally and partly gathered from the literature. All the experimental results are marked with a 'P'. If the code is succeeded by a number, this refers to the citation in the bibliography.

0 = self-incompatible + = self-compatible

Disease resistance descriptors

The results of a literature review are presented in the listing of the catalogue. The different notations of the observed reactions of the plant against the fungal attack were transformed into the following codes:

H = hypersensitive

I = immune

R = resistant

S = susceptible

T = tolerant

M-R = moderately resistant

T-R = tolerant to resistant

After each of the codes one or more numbers are given which refer to the citations in the bibliography.

Data of the following diseases are included:

Notes

General observations and remarks are included in the catalogue. The information on the combining ability of a clone is gathered from the literature.

Procedures of the description

The first decision that had to be taken concerned the sampling strategy for the several organs. Preliminary data from all the fruits from random clones were statistically analyzed. The results showed no significant differences between trees/within clones for all the descriptors studied (Engels et al., 1980). This meant that the flowers and fruits of all the trees of a clone could be mixed without indicating the tree-number. However, malformed or other 'off types' of fruits were not included in the calculations of mean and CV.

The next decision concerned the number of samples in each clone needed for each of the characteristics so that the sample mean would fall within the ninety-five percent confidence limits of the population mean, ninety-five times in a hundred. To calculate this 'minimum sample size', the following formula was used:

$$r \geq 0.16 \left[\frac{(\sigma)}{\mu} \frac{(100)}{2} \right]^2$$

(Pound, 1931)

in which 'r' represents the 'minimum sample size', 0.16 a constant, σ the standard deviation and μ the mean of the population. For some highly variable descriptors as fruit weight, the calculated 'r' was too high to be practical and a lower, arbitrary, number of samples was used. The actual sample size is given in the definitions of the descriptors.

The fruit production of several clones was so low that the description of the fruits, to secure a minimum sample (35-40 fruits), continued for months, sometimes for years. The possible influence of this 'time' factor on the variation within clones is not taken into consideration. The results obtained with data from three clones and two descriptors (fruit length and width) harvested in two different years (but in the same months) did not show any significant differences between clones, between years or in the interaction. The effect of the time of harvest within a year on the expression of the descriptors is not known.

Comparisons of the presented data with descriptions prepared earlier, of the same clones in Turrialba and elsewhere, did not show great differences. Although no statistical methods were applied, it can be said that the phenotypical expression of the majority of the descriptors for the described clones was fairly stable.

The majority of the colour-related characteristics were described in the laboratory under uniform light conditions. The measurements were done with a large and a small vernier caliper; the colours were determined with the Methuen handbook of colour (Kornerup and Wanscher, 1978). The weights were measured with an analytical balance (precision 0.1 g) and the seeds were dried in a common drying oven. The sizes of the different flower organs were measured under a stereo microscope after careful flattening of the organs between a glass slide (with scale) and a cover slip. Glycerol was used to prevent movement

and drying.

Information on disease resistance was collected from the literature. Sometimes it was necessary to interpret the information and to adapt it to the present format. Therefore, the citation numbers are given (up to four per item) to enable the reader to recheck these data.

The study of the compatibility of several clones was done in the second part of 1980. Ten flowers per clone, each on a different tree, were self-pollinated under absolute isolation. In case of dubious results the experiment was repeated. The data are annotated in the catalogue listing with a 'P'. If the code is succeeded by a number, this refers to the bibliographic citation where the information was found.

The collected and coded data were stored on diskettes with an IBM 3742 data entry machine. After adjustment to the required GDM format (Germplasm Data Management System) the data were sorted and listed by programmes developed at the 'Information Sciences/Genetic Resources Program (IS/GR)' of the University of Colorado at Boulder. The statistical analyses were done with several programs developed by Heather Palmer at CATIE (MLTREG for multiple linear regression-version HJP 05/06/81, VARSTATS for simple statistics and DISTFIT for frequency histograms – version HJP 07/05/81).

Catalogue

Since there are far more descriptors per accession than fit on one page of the listing, the data for each clone are presented on five successive pages. The accession number is the identifier for each clone and is presented in the first column of each page.

The first part of the catalogue comprises the 294 completely described clones. They are presented in ascending order by accession number, which is approximately the same as the alphabetical order of the accession name (page 36).

In the second part those clones are listed which were only partially described, mainly due to the low fruit production. Since in this part no agronomic descriptors are included, the value is mainly taxonomic. It also serves as a germplasm list (page 108).

In a flap at the end of the catalogue the means and the ranges of the important quantitative characteristics are presented. This flap can be unfolded and allows comparison of individual clonal data with the overall magnitudes. The means, CVs, and ranges of the other quantitative data are presented, with the distribution frequencies of the qualitative data, in Appendix D.

Drawings of fruits

During the systematic description of each of the clones, the most representative fruit was taken as a model. The circumferences of the longitudinal and transversal sections were drawn at natural size (page 119). The drawings here presented are all reduced by the same proportion, as can be seen from the scale in the lower part of the page.

Related cacao species

In Table 7 the *Theobroma* species and some interspecific hybrids are presented which were described in 1979. The same flower characteristics were used as in the systematic description of the flowers of the cacao collection. Some other striking

descriptors were added. The results are given in Table 8. As illustrations simple drawings of the flowers and of a young leaf are included (figures 7–16). Their real sizes should be taken from the presented data. Some drawings are adapted from Cuatrecasas (1960).

Table 7. The *Theobroma* species and the number of trees used in their systematic description.

Species or cross	Figure	Tree number
T heobroma angustifolium	7	10
T. bicolor	8	8
T. grandiflorum	9	10
T. microcarpum	10	8
T. mammosum	11	10
T. simiarum	12	10
T. speciosum	13	10
T. subincanum	14	2
T. mammosum x T. simiarum	15	30
T. simiarum x T. mammosum	_	21
T. cacao, mutation Upala	16	15

Table 8. Results of the description of different *Theobroma* species and of some crosses.

	7.	. angustif	olium			T. bico	lor		7	. grandif	lorum		T. microcarpum				
FLOWER DESCRIPTOR	X	\$	T	n	×		T	n	X	\$	T	n	X	s	Т	n	
1 style length (mm)	2.38	0.15	2	2	1.8		1	2	2.44	0.26	5	2	1.65	0.13	2	2	
2 ovary length (mm)	2.13	0.12	2	4	1.6		1	4	2.17	0.15	5	4	1.88	0.12	2	4	
3 ovary width (mm)	1.78	0.07	2	4	1.4		1	4	1.81	0.12	5	4	1.56	0.07	2	4	
4 staminode length (mm)	12.4	1.19	2	2	5.7		1	2	16.2	0.95	5	2	7.75	2.9	2	2	
5 sepal length (mm)	7.4	0.85	2	2	7.1		1	2	18.0	1.63	5	2	6.93	0.39	2	2	
6 sepal width (mm)	4.28		2	4	2.2		1	4	8.3		5	4	2.86	0.27	2	4	
7 petal length (mm)	12.9	8.82	2	3	1.5		1	3	12.4	1.11	5	3	_				
8 ligule width (mm)	3.17	0.26	2	3	0.6		1	3	7.36	0.66	5	3	_				
9 anthocyan. intens. of the ligule	0		1	1	0		1	1	7		1	1	_				
O anthocyan, intens. of the filaments	7		1	1	0		1	1	3		1	1	_				
11 colour of the sepals	0		1	1	0		1	1	12D4		1	1	10D7		1	1	
12 anthocyan. intens. upper part ovary	0		1	1	0		1	1	0		1	1	0		1	1	
13 colour peduncle	3C4		1	1	9D4		1	1	5D7		1	1	30C5		1	1	
14 colour young leaf		greer	1		(dark red	d			purple				green			
15 colour flower bud		green				red	red			een-bro	green						

 $[\]bar{\mathbf{x}}$ = mean value

s = standard deviation
T = number of trees
n = number of samples per tree

	T. mamm	osum			T. simia	rum			T. specio	sum		•	T. subino	anum			T. mam. x	k sim.	-	T. cacao, mutation Upala				
¥	8	Т	n	<u>x</u>	8	T	n	X	8	T	n	×	8	T	n	X	8	T	n	×		Ť	n	
1.77	0.18	3	2	1.79	0.26	5	2	2.61	0.14	5	2	2.2		1	2	244	0.11	5	2	1.1	0.16	4	2	
2.53	0.09	3	4	1.91	0.20	5	4	2.56	0.09	5	4	1.2		1	2	2.06	0.07	5	4	1.79	0.18	4	4	
2.0	0.06	3	4	1.58	0.12	5	4	1.97	0.23	5	4	1.0		1	2	1.95	0.08	5	4	1.02	0.05	4	4	
204	2.14	3	2	13.2	0.64	5	2	7.3	1.06	5	2	6.8		1	2	15.6	1.02	5	2	_				
12.3	6.03	3	2	10.6	1.32	5	2	7.92	0.91	5	2	7.9		1	2	15.7	0.94	5	2	6.36	0.55	4	2	
6.8	0.65	3	4	5.96	0.67	5	4	4.75	0.64	5	4	3.6		1	2	7.21	0.66	5	4	2.34	0.28	4	4	
8.67	0.53	3	3	9.43	0.52	5	3	5.9	2.19	5	3	3.9		1	2	19.6	0.59	5	3	7.88	0.82	4	3	
2.17	0.16	3	3	3.54	0.73	5	3	5.4	0.78	5	3	1.8		1	2	4.85	0.60	5	3	2.56	0.15	4	3	
0		1	1	0		1	1	0		1	1	0		1	1	0		1	1	3		1	1	
7		1	1	0		1	1	0		1	1	0		1	1	7		1	1	7		1	1	
11D7		1	1	0		1	1	0		1	1	9D7		1	1	10C5		1	1	10A4		1	1	
0		1	1	7		1	1	0		1	1	0		1	1	0		1	1	3		1	1	
5E4		1	1	6E5		1	1	10F6		1	1	30B4		1	1	3C5		1	1	8D6		1	1	
	green				greer	า			gree	า			gree	n			gree	n			red			
	green				brow	'n			purp	le			gree	n			gree	n		slightly purple				

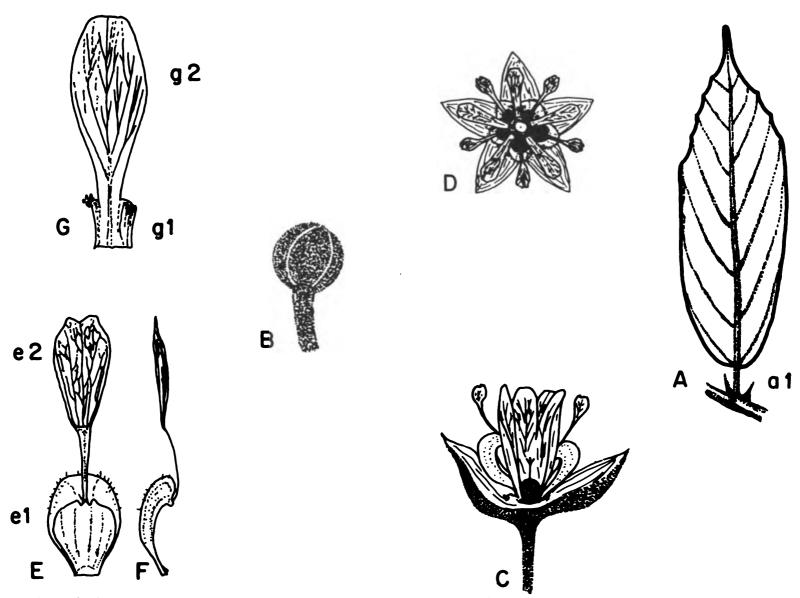


Fig. 7. Theobroma angustifolium Moçiño; A. young leaf (with brown hairs); a.1. stipule; B. flower bud (with brown hairs); C. flower, lateral cross-section; D. flower, top view; E. petal, inside view; e.1. ligule; e.2. cup; F. petal, lateral view; G. staminode and stamen; g.1. purple; g.2. yellow.

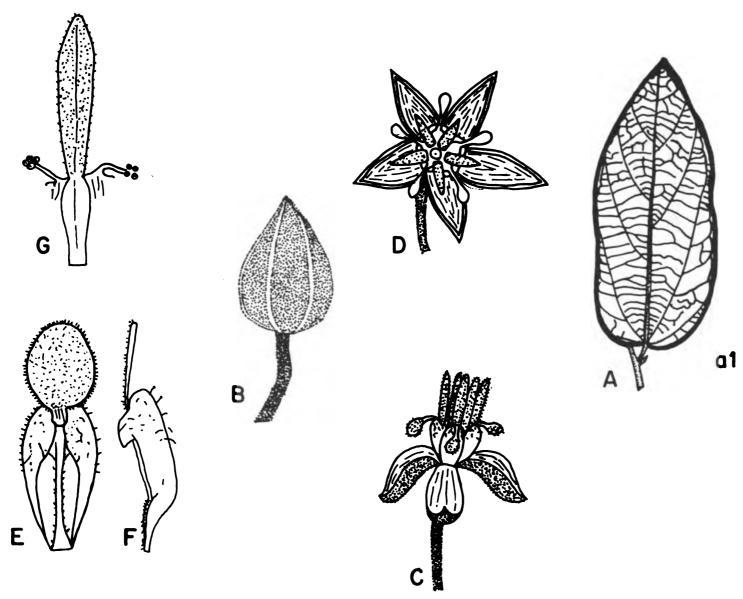


Fig. 8. Theobroma bicolor, Humb. and Bonpl.; A. young leaf; a.1. stipule; B. flower bud; C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode and stamen.

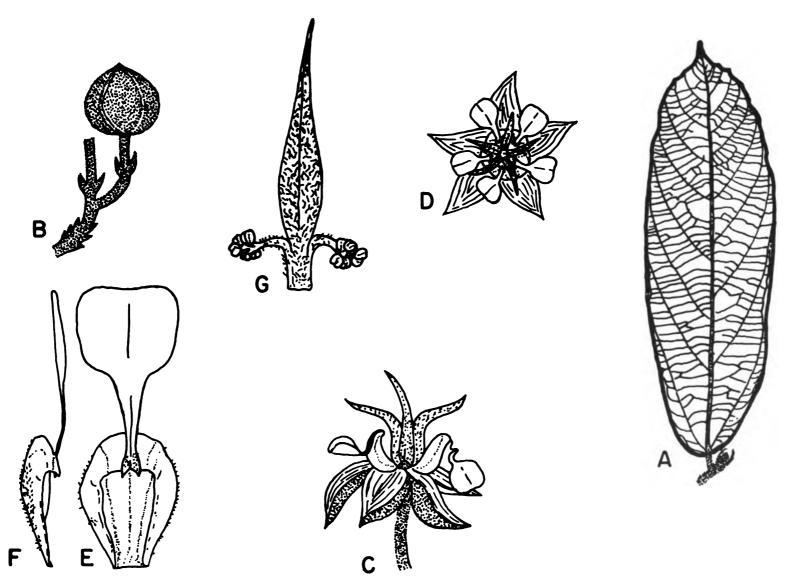


Fig. 9. Theobroma grandiflorum (Willd. ex Spreng.) Schum.; A. young leaf (very pubescent); B. flower bud (pubescent); C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode and stamen.

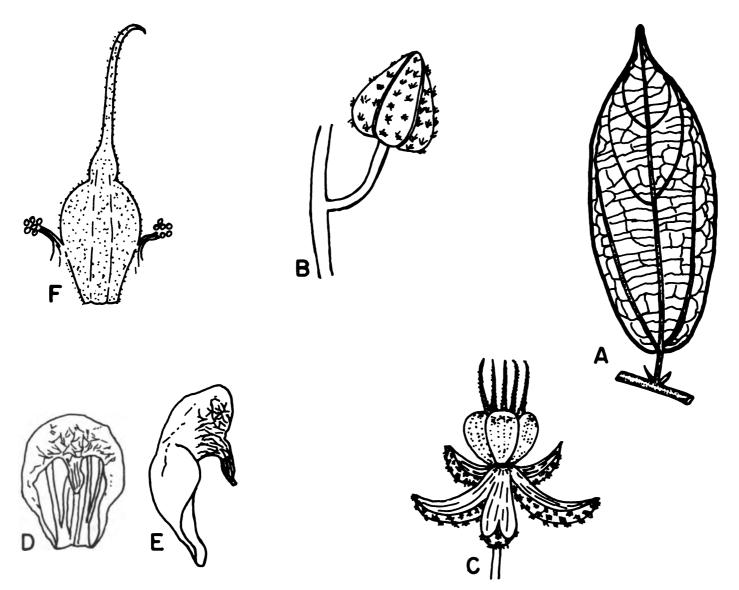


Fig. 10. Theobroma microcarpum Mart. A. young leaf; B. flower bud; C. flower, lateral view; D. petal, inside view; E. petal, lateral view; F. staminode and stamen.

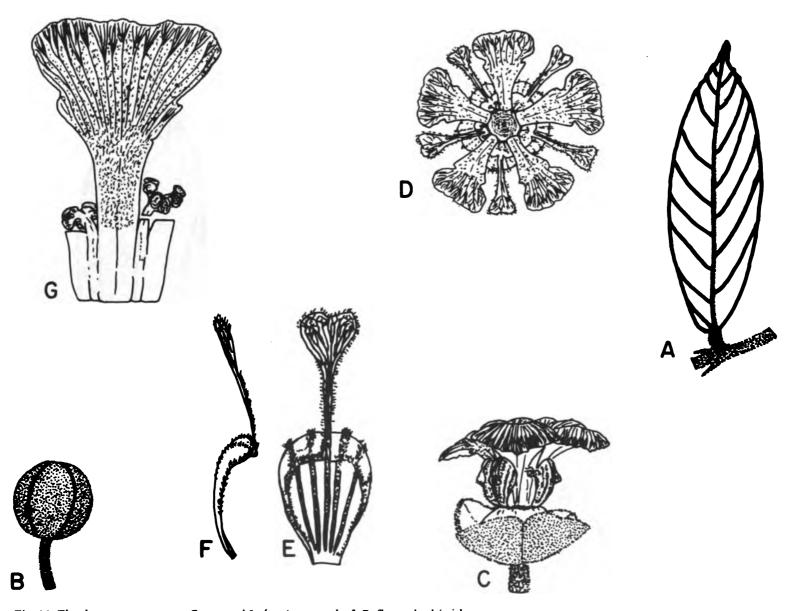


Fig. 11. Theobroma mammosum Cuatr. and León; A. young leaf; B. flower bud (with brown hairs); C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode and stamen.

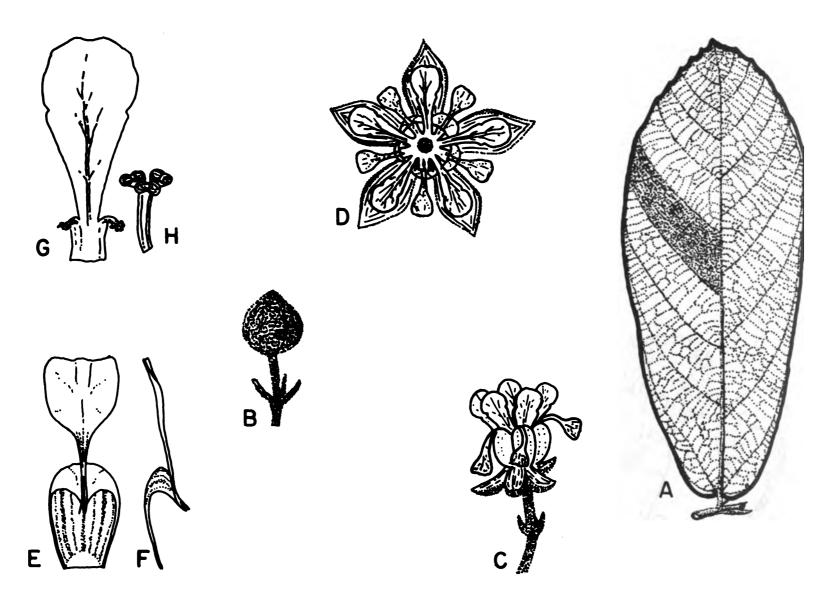
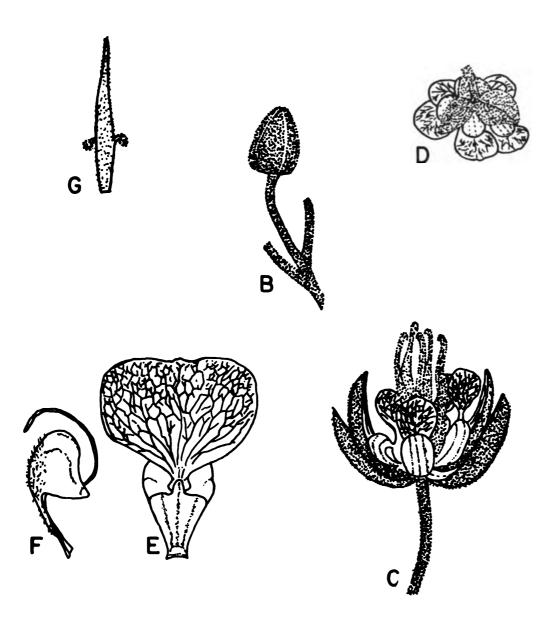


Fig. 12. Theobroma simiarum Donn. Smith; A. young leaf; B. flower bud (pubescent); C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode; H. stamen.



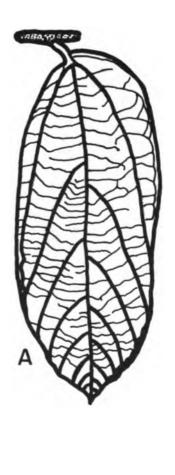


Fig. 13. Theobroma speciosum Willd.; A. young leaf; B. flower bud; C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode and stamen.

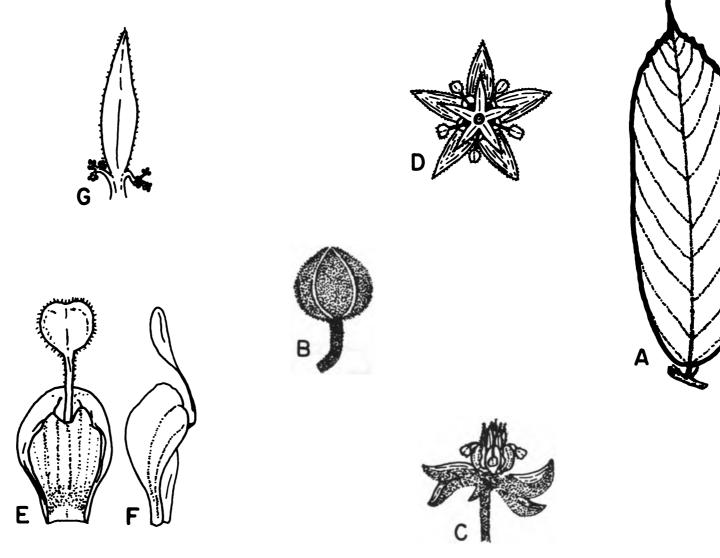


Fig. 14. Theobroma subincanum Mart.; A. young leaf; B. flower bud; C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode and stamen.

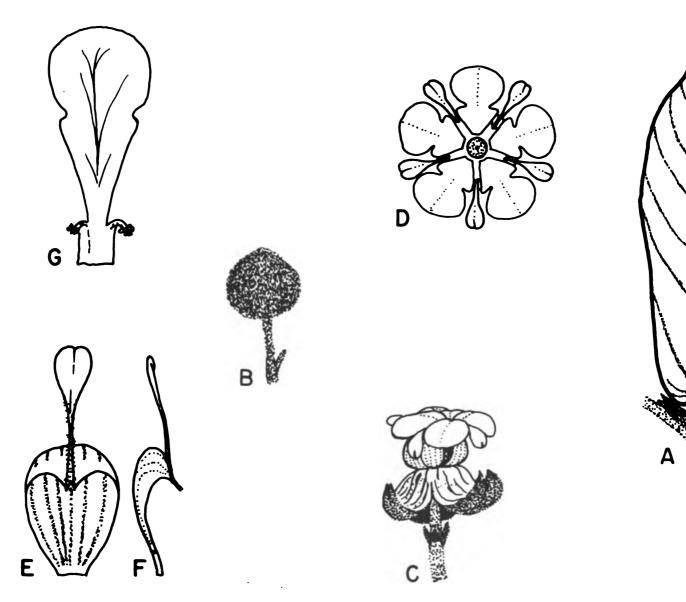


Fig. 15. F_1 of the cross T. mammosum x T. simiarum; A. young leaf (with brown hairs); B. flower bud (with brown hairs); C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; C. staminode and stamen.

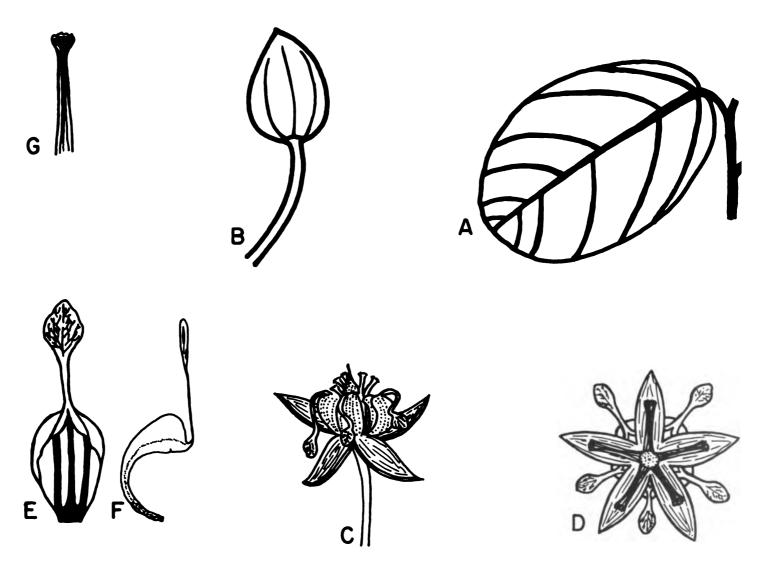


Fig. 16. Theobroma cacao cultivar 'Upala, mutation'; A. young leaf; B. flower bud; C. flower, lateral view; D. flower, top view; E. petal, inside view; F. petal, lateral view; G. staminode.

References

In the first part the references are given which were cited in the introduction to this catalogue.

The second part comprises those references which contain information on self-(in)compatibility and disease resistance. An effort was made to refer only to review articles and other publications which contain several pieces of information on various clones, to prevent too long a list. Therefore, the information is probably incomplete.

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CATALOG PART I

COMPLETELY DESCRIBED CLONES (See flap at the end of part II)

							General				
TUR	1000	and don't	120	Accession name	e Synonyms	Cour of orig	ntry subd	Political livision gin	farigin	Name collecting s	1 67 -5
10071	В	22	7	APA-4		COLOMBIA	VALLE	PALMIRA			
10092	B	27	7	APA-5		COLOMBIA	VALLE	PALMIRA			
10102	H	55	5	BE-10	75	BRASIL	BELEN				
10103	H	89	8	B9-2		HUNDURAS		BUENUS ATRES	200		
19198	C	62	7	CAS-1		BRASIL	PARA	SANTAREM	3	CAMPO AGRIC. SA	NTAREM
10109	С	63	8	CAS-3		BRASIL.	PARA	SANTAREM			
10113	B	33	6	CATONGO BLANCO		BRADIL	RAHIA				
10114	1	16	19	CATONGO PLANGO		BRASIL	PAHIN				
10125	В	5	9	CATONGO-0		BRASIL	BAHIA				
10128	I	25	16	CATONGO X SELF		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	2
10132	D	16-17	7	CC-9		COSTA RICA	LINDA	28 HILLAS	3	LA LULA	1 .
10133	D.	16-17	7	CC-10		COSTA RICA	LIMON	28 HILLAS	3	LA LULA	1
10134	D	16-17	6	CC-17		COSTA RICA	LIMUN	28 MILLAS	3	LA LOLA	1
10135	C	22-23	8	CC-18		COSTA RICA	LIMON	28 MILLAS	- 3	LA LOLA	1
10136	D	18-17	6	CC-27	STICA LL-9	COSTA RICA	LIMON	28 millas	-3	Ln LDLa	1
10139	C	26	27	CC-34	STICA LL-16	COSTA HICA	LIMON	28 HILLAS	3	LA LDLA	1
10140	D	20	21	CC-35		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10142	D	20-21	4	CC-37		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1.
10143	D	18-19	5	CC = 30	-533	COSTA RICA	CARTAGO	TURRIALBA	3	CATTE	2
10144	C	30-31	В.	CC-39		COSTA RICA	CARTAGO	TURRIALBA	3	CATTE	The state of
10145	C	28-29	7	CC-40		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10146	D	18-19	8	CC-41		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10147	D	18-19	7	CC-42		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10148	C	28-29	4	CC-43		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10149	D	20-21	7	CC-44		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1

	100	General		MA	/	Pr	oduction	The sy	/			*		Seed			BRIL	021
11		/	/	./		/	11	/	REF	/		/	/		18	\$ / 3	1	
July and State of Building Pedigree	MALE	d description	S of Secretary		1	/2	100	Wet si	ed	Dry	seed	/ B. 18	Num	ber of	1 3 8 3	10 mm	Seed	length July
Pedigree	/	38/3	8 2 8 LINE	100	THE S			weight in	18	weight	in g	Ser Ser Ser	seeds per	fruit	Per Per Per	\$ 3E/	in r	1000
					1	1	mean	/ CV	mean	/	1 4	mean	/	100	/ da ,	mean	1	1 , 41
0021	1978		35.1	,97	5	42	1.43	67.0	.97	08.8				0.70	0.048	22.7		0,48
10092	1979	01	29.8	1.04	7	43	1.6	08.3	1.04	08.1	0,65	-	-	0.75	0.042	23.1	03.2	-
0102	1988		27.5	. 48		40		19.1	-98	22/4	11-64		2617		0.052	22 7		V-52
10103	1980	0.6	27.4	1.01	-	49	1.73	117-3	1.01	11.3	11,58	33 /B	122.12	0.59	0.05%	23.0	04.3	0.52
	1980	07	29.2	1.1	2	43	1.7	14,1	1.1	17.0	0.65	31.1	31.2	0.72	0.063	24.9	06.8	0.49
0109	1980	08	25.5	1.25	6	46	1.87	09.6	1,25	09.1	0.67	31.5	30.8	0.68	0.063	26.0	05.4	0.48
0113	1979	0.4:	30.0	.M5		50	1,37	17.9	,05	20.9	0 69	34.3	24.4	0.67	0.064	23.4	0.7.5	0.51
0114	1780	07	35.7	1.17	B	49	1/65	08.5	1,17	00.5	0.71	32,9	24 3	0.67	0.059	24,5	07.3	0.49
0125	1979	05	22.6	1.14	3	48	1.76	14.4	1.14	15.9	0.65	34.1	29.2	0.71	0.065	24.5	08.6	0.51
0120 CATONGO	1980	07	34.0	1.2		48	1.73	09.2	1,2	08.3	0.69	35.3	24.4	0.74	0.057	25.0	05.6	0.47
0132 MATINA	1978	04	28.8	1.11	5	41	1 77	08.3	1.13	05.9	0.63	51.4	28.7	37.72	0.078	23.9	05.5	0.51
0133 MATINA	1978	05	18.8	1.75	3	91	2,83	18/8	1.75	20.2	0.62	30.4	20.1	0_29	0.058	28.8	05.7	0.56
0134 MATINA	1978	05	19.4	2.03	3	45	3.07	15.4	2.03	13.8	0.66	25.4	29.5	0.56	0.044	29.3	06.5	0.55
MATINA	1978	04	19.7	1,43	5	46	2.3	10.4	1.43	14.9	0.62	35,5	21.7	.0.77	0.062	25.6	05.9	0.53
8136 HATINA	1978	115	20.9	1 34	4	41	2.89	11,2	1.54	10.7	0.62	31.1	24,6	0.75	0.052	26.2	09.7	0,59
0139 MATINA	1978	05	20,0	1.32	7	49	2,01	11.0	1.32	11.9	0.66	27.1	22.9	V.76	0.066	24.6	07,1	0.54
0140 UF-650	1978	03	17.1	1,77	4	46	2,79	19.0	1,77	20.5	0.63	34.5	08.9	0.75	0.056	26.4	06.4	0.53
0142 UF-667	1978	05	20.8	1.38	4	45	2.23	15.9	1.38	14.5	0.62	34.9	23.2	0.78	0.074	25.6	03.1	0.57
0143 UF-676 X MATINA	1978	113	23 1	1-11	7	50	1.75	17.1	1.11	16.1	0.64	38,9	22.1	0.78	0.003	24.5	02.8	0.56
0144 UF-668	1978	05	20.4	1.15	7	43 .	1.78	14.3	1.15	11.0	0.65	30.0	07.1	0.73	0.058	23.8	05.9	0.55
0145 UF-675	1978	05	27.1	.99	7	48	1.58	15.2	. 99	10.7	0.63	37.2	09.1	0,77	0.094	24.6	04.6	0.56
0146 UF-676	1978	03	23.7	1,19	6	48	1.93	10.3	1.19	09.7	0.62	35.3	24.6	0.74	0.068	24.2	04.3	0.57
0147 UF-676	1978	0.9	29 =	1.04	6	44	1,77	19.5	1 04	18.3	0.59	32.7	34.0	0.74	0.071	2510	04.5	0.54
0148 UF-667	1980	BW	22.2	.85	5	48	1.29	11.9	.85	15.7	0.66	38.2	18 6	0.80	0.082	22/6	4.0	0.47
0149 UF-667	1978	03	20.4	1.43	7	46	2.23	12.6	1.43	11.8	0.64	34.2	33,3	0.74	0.046	24.6	04.9	0.61

31176	1000	1735	/				Se	ed	100			/		hee	ERE!	100	1000	Fr	uit		Marie	le li			W.E
	mean mean	See	ed width			knes	1	/	Cotyledo		/ Fr	uit leng	th /	Fruit widt	n / start	San Art	O JE /	uit weigh		Fruit wall kness at	/	Fruit wa	"/	1	State of the last
1	1 / C	7011	n mm		in mi		13			die /	,	n mm	/	in mm	Chita San San San San San San San San San Sa	Sagar State	/	ing	ridge i	/	furrow	in mm	Huit	The state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			mean		13	16	1/18	18	14/	mean	/ cv	/	1		18 4			mean	/	mean	/	18	13	10/10	130,10
10091	11.0	05.2	08.4	11.1	0	0	0	+	0	161	8.80	097	04.4	0.60		614	19.9	13.6	08.8	09.9	09.7	28B3	0	0	0
10092	11.3	04.3	08.4	06.8	0	0	0	+	0	169	09.3	101	07.5	0.60		767	22.1	14.0	10.9	10.8	10.3	2883	0	100	0
10102	11.9	07.6	00.6	12,8	a	0	9		a	188	11.8	071	11.0	0.48		725	26.5	14.0	13,5	09.8	10,4	29E7	0		Đ
10103	11.9	06.7	08.8			0	_	0	_	190	11.6		10.3			596	30.5	13.1	16.0	18.4	15-5	3008	0	n.	
10107	12.2	04.9	08.2	08.5	0	0	+		0	159	10.1	086	09,3	0.54	0.53	494	28.1	09.7	16.5	06.5	16.9	3005	0	0	
10109	12.5	04,8	08,4	08.3	0	0	+	0	0	164	09.1	085	08.2	0.52	0.53	499	26.4	09.6	10.4	06.5	16.9	30E8	0	0	0
10113	12.1	88.0	07.6	17.0	*	0	+	1	11	136	11.0	BBU	11.2	0.65		501	29,1	11.7	10.4	10844	12.0	3083	0	U	0
10114	12.0	05.0	08.2	08.5	-	10	*	+	0	142	12.7	0.95	07.4	0.47	0.45	560	27.3	11.3	15.9	08.3	14.9	3006	1)	0	· O
10125	12.5	03.9	08.1	12.3	+	0	+	+	0	130	09.3	091	07.7	0.70		524	20.6	10.8	13.2	07.9	16.1	28B3	0	0	0
10128	11.7	05,1	08.1	6.80	+	0	+	+	0	147	08.2	097	07.2	0.65	0.53	615	21.1	11.8	13.5	08.9	14.6	2907	0	0	0
10132	12.3	03,B	07.0	05.9	0	0	0	*	0	156	13.2	077	00.9	0.50		404	27.6	11.4	13.4	97.3	17.8	3005	U.	0	ū
10133	16.1	06.8	10.5	13.3	0	0		0	0	174	10.9	083	09.6	0.48		524	25.2	11.7	19.6	08.4	17.9	3006	0	0	0
10134	16.1	08.7	11.3	15.9	0	0	0	+	0	180	12.8	084	09.5	0.47		584	27.4	11.8	10.2	08.2	15.8	3006	0	0	0
10135	13.5	08.1	10.1	08.9	0	0	+	0	0	175	13.1	085	08.2	0.49		575	24.7	12.1	09.9	08.1	11.1	29B3	0	0	0
10136	15.4	05.0	09.1	08.1	0	0	D	+	a	143	\$2-0	095	12.1	0.67		500	26 9	12.9	11.4	08.9	14.5	3004	2	5	0
10139	13.3	04.8	89.B	14.3	0	0	0	1	0	187	10.1	083	04.0	0.44		545	25.8	13.2	06.1	B.AU	19.1	30ES	0	ū	D
10140	14.1	11.2	09.8	10.8	0	0	0	+	0	185	15.2	085	10.5	0.46		614	30.3	12.5	15.5	08.1	16.2	30B3	0	0	0
10142	14.7	8.60			0	0	+	0	0	161	11.8	081	09.9	0.50		472	29.0					30B4	9	5	6
1.0143	13.8	05.6	08.2	08.0	0	0	0.	+ .	0	144	10.0	086	10 1	0.60		470	32,4	11-0	14.4	07.2	15.8	3004	0	0	0
10144	13.1	05.1	10.3	08.7	0	0	0	+	+	160	10.2	081	12.1	0.50		515	2578	16.5	0719	09.3	09.7	2683	0	0	0
10145	13.8	06.7	07.8	10.2	0	0	0	+	0	138	10.9	082	08.1	0.60		397	24.8	11.8	10.2	06.6	16,7	28B3	0	0	0
10146	13.7	04.7	08.6	05.6	0	0	0	+	0	158	10.1	085	08.3	0.54		523	22.5	11.7	11.4	07.9	15.8	30B3	0	0	0
10147	13.5	05.9	00.5	11.4	O.	0	+	0	0	143	12.5	079	10 1	0.56	5311	459	25.0	11.6	91.60	07.9	12 6	3004	4	1	0
10148	10.6	3.B	9.2	4.9	0	0 -	*	a	0	206	11.3	74	9.0	0.36	0.46	467	30.0	12.3	9.8	6.3	19.0	29E8	D	0	0
10149	14.9	08.1	09.6	14.6	0	0	0	+	0	183	11.7	093	09.2	0.51		743	26.6	15.3	11.5	09.9	12.6	30B3	0	0	0

				/			Fru	iit	1							1	Flower						
/	- And	S SEE SEE SEE SEE SEE SEE SEE SEE SEE S	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11/10/10	and			mean	Sty	le length	/0	vary lengt	th /a	vary widt	h /	Staminode length in mm	1 - 00	pal lengtl	/s	epal width		sule length	Ligule width in mm
138	13	E 25/43	8 /d	8/4	3/4	100	3/20	mean	/ cv	mea	n/cv	mean	1/cv	mea	n/cv	mean	/ cv	mean	/ CV	mean	CV	meun	/cv/
10091	0	0.65	3	3	1	1	3	2.27	0.18	1.46	0.09	0.95	0.09	6.25	0.27	7,94	0.66	2,20	0.27	7.70	0.65	2.14	0.25
10092	0	0.65	1	3	1	0	7	2,30	0.11	1,17	0.09	0.96	0.05	7,40	0.29	B.26	0.34	2.32	0.31	7,57	0.46	2.56	0.34
10102	0	0.72	5	4	5	5	7	2.40	0.30	1.70	0.30	1.00	0.10	0.60	0.60	9.70	0.51	2.60	0.20	9.30	0.80	2.10	0.30
10103	0	0.89	3	3	5	2	7-	1.90	0.20	1.60	0.10	0.90	0,10	7.20	0.40	7.90	0.50	2.00	0.40	8.30	0.70	2.30	0.20
10107	0	0.96	1	2	4	5	7	2.43	0.21	1,27	0,09	1	0.03	6.69	0.28	7.82	0.45	2.07	0.18	7.11	0.50	2.12	0.24
10109	0	0.88	1	1	5	5	7	2.61	0.11	1,47	0.15	1,10	0.06	8.04	0.29	9.38	0.64	2.02	0.12	8.19	0.29	2,42	0.33
10113	0	0.72	3	D	1	1	7	2,46	0.15	1.48	0.10	1.02	0.04	7.78	0.02	8.58	0.27	2.35	0.28	7.69.	0.45	2.19	0.15
10114	0	0.88	3	2	3	1	7	2.40	0.10	1.30	0.10	1.02	0.04	7.80	0.40	7 BD	0.50	2.20	0.30	7,90	0.40	2.30	0.20
10125	0	0.92	3	3	1	0	7	2.12	0.10	1,42	0.09	1.01	0.03	7.62	0,44	7.99	0.80	2,18	0.25	7,59	0,52	2.36	0.35
10128	0	0.98	1	2	3	1	7	2.15	0,08	1,32	0.08	1.02	0,04	7.94	0,48	8.32	0.53	2,62	0,21	7.63	0.64	2.63	0.29
10132	0	0.70	6	3	3	5	5	2.47	0.10	1.32	0.09	0.98	0.10	6.80	0.36	8.08	0.40	1.97	0.19	7.61	0.35	2.11	0.31
10133	U.	0.60	3	3	5	3	5	2,01	0.13	1.21	0.08	01.94	0.08	7,73	0.45	9.07	0.64	2.31	0.26	8,17	0.40	2.98	0.22
10134	0	0.65	5	3	5	3	3	2.04	0.11	1.35	0.06	0.98	0.04	7,68	0.54	9.16	0.48	2.14	0.22	8.11	0.63	2.71	0.21
10135	0	0.61	2	5	5	0	3	2.13	0.11	1,25	0.09	1,02	0.04	8.50	0.42	9,15	0.92	2.43	0.21	7.25	0.51	2:38	0.24
10136	g	0.75	1	2	3	0	5	1.94	0.16	1 22	11.14	0.82	0.11	7.51	0.17	9.71	0.70	2.52	11.27	8,33	0.37	3 15	0.11
10139	0.	0.63	7	3	5	5	3	2,49	0,12	1.39	0.09	1.05	0.00	7.54	0.43	9,05	0.33	2.45	0.29	B/29	0.61	2,63	0.20
10140	0	0:67	7	7	5	5	3	2.08	0,08	1.32	0.08	0,97	0.05	8.10	0.50	10.25	0.54	2,53	0.16	8.57	0,56	2:4	0.22
10142	0	0.77	4	5	7	0	3	1.90	0.10	1,30	0.20	1,00	0.08	6.90	0.30	8.10	0.90	2.20	0.20	7,30	0.80	2.30	0.20
10143	0	0.55	4	3	3	3	3	2.10	0.16	1,42	0.1	0.74	0.08	6.6	0.31	B 3	0.32	2.0	0,11	7,1	0.57	2.0	0 13
10144	0	0.61	2	3	5	1	3	2,38	0.10	1.39	0.11	1.01	0:06	7.4	0.47	7.89	0.41	2.30	0.26	7.45	0.40	2/89	0.19
10145	0	0.62	5	3	3	1	3	2.23	0.16	1.19	0.13	0.95	0.05	7.21	0.35	8.0	0,67	2.04	0.20	7.15	0.30	2.07	0.18
10146	0	0.68	5	3	3	3	7	2.01	0.11	1.43	0.11	0.99	0.04	7.13	0.28	9.35	0.57	2.11	0.14	8.11	0.61	2.09	0.15
10147	0	9.75	T _B	g.	3	3	3	2.30	0.20	1.50	0.07	1.06	0.05	7.60	0.40	9.01	0.38	2.30	0.21	8.20	0:50	2.30	9.20
10148	0	0.84	5	7	9	3	5	2,50	0.08	1.43	0.07	1.04	0.05	7.91	0.49	9,16	0.34	2,40	0.20	8.48	0.40	2.58	0.26
10149	0	0.73	6	5	5	3	3	2.21	0.24	1.73	0.13	1,02	0.13	8.00	0.41	9,20	0.40	2,20	0.20	8,10	0.60	2.10	0.20

				/		Flower		Lest	/		Compatibility and resistance
138	/	1	\$ /3	0/2	\$ 10 mm	8/	/	. /	/		patrition References / Referenc
/	1	OL C.	1 5 / 1 TO	1	1 /25	and I	n cole	and distributed Re	ference	100	Polit References / References / References / References / References / Notes
138	1	Signal of	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	Signacy Contra	and died to the	1	1 S. C.	/	office/	patrition References / Referenc
10091	7	3	10A3	0	30B5	706			1 81.	/	
10092	7	0	9A2	0	30B5	606					
10102	3	3	9A4	0	3005	6E8		1 3,15	-	100	
10103	3	3	9A4	0_	3005	808					
10108	7	0	10A4	0	2905	807			T-R	1	
10109	2	7	10A3	0	2806	907					
10113	n	-11	IA2	0	301/5	107		388	T-R	1	
10114	0	0	1A2	0	3005	2B4					
10125	0	0	1A2	0	3005	105					
10128	0	0	1A2	0	2906	105					
10132	3	3	BA2	0	30A3	BC7	6	43			T 43 BOOD COMBINING ABIC
10133	7	3	10A5	0	30B5	908		41,42,43	13	43	
10134	7	3	10A4	0	30A3	907					
10135	0	3	10A4	0	2904	808					
10136	3	7	10A4	n	30B4	BC7					
10139	3	7	10A4	0	3084	SD5		-			
10140	7	3	10A4	0	30B4	807					
10142	3	Ó	9A3	0	29114	907					
10143	3	3	1082	0	30A3	BEB	*	36 P	T-R	1	
10144	0	0	10A3	U	3004	BC6	*	43	5	43	
10145	0	3	9A2	0	3004	907	0	13,22			
10146	3	3	9A4	0	30A3	806	+	41	T-R	1	
10147	1	1	9A3	0	3005	768			7-11	1	
10148	_			U	30B5	9117				. 3	
10149	7	1	9A4	3	30B4	1007	+	p			

		1.		STATE OF THE SAME	and designation of		General				
Ziff of	100/00	and and	and A	Accession name	Synonyms	Cou of orig	in / sur	Political Locality of origin rigin	/0	Name of collecting source	To the state of th
10150	С	28-29	6	CC-45	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
10151	D	18-19	6	CC-46	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
10152	C	28-29	6	00-47	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
10153	0	30-31	6	CC-48	COSTA	RIGA	CARTAGO	TURRIALBA	3	CATTE	1
10154	С	30-31	8	CC-49	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
0155	С	30-31	4	CC-52	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
10158	D	14-15	6	CC-67	COSTA	RICA	CARTABO	TURRIALBA	3	CATTE	
0159	D	14-15	8	CC-69	CUSTA	RICA	CARTAGO	TURRIALBA	3	CATTE	
0160	D	14-15	8	CC-71	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	
0161	D	14-15	5	CC-74	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
0162	C	24-25	7	CC-79	COSTA	RICA	CARTAGO	THRRIALRA	3	CATTE	1
0163	C	24-25	8	CC-83	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	1
0164	Н	19	11	CC-99	COSTA	RICA	CARTAGO	TURRIALBA	3	CATIE	
10165	С	24-25	7	CC-100	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1
0166	C	24-25	4	CC-102	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	Þ
0167	D.	12-13	6	CC-103	COSTA	RICA	LIMON	26 HILLAS	3	LA LOLA	1
0168	D	12-13	6	CC-106	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1
0169	D	12-13	6	CC-107	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1
0170	C	22-23	3	CC-120	COSTA	RICA	LIMON	28 MILLAS	3	LA LDEA	1
0171	C	22-23	8	00-121	COSTA	RICA	LIMON	28 KILLAS		LA LULA	1
0172	D	12-13	5	CC-124	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1
0175	С	22-23	4	CC-132	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1
0177	D	10-11	8	CC-137	COSTA	RICA	LIMON	78 NILLAS	3	LA LOLA	Tr.
0178	D	10-11	7	CC-138	COSTA	RICA	CIOON	28 HILLAS -	3	Le LULA	16
0179	D	10-11	7	CC-139	COSTA	RICA	LIMON	28 MILLAS	3	LA LOLA	1

THE	/		General	170		/	1	Production	-	/	100		7.39		Seed	-			4 3
	13/	= 1	/	1	/		1	//	/	1114	/		/	/		/3	1/2/	1	/
1	Pedigree.		de d	a section		/	/	10.31	Wot se	red	Dry	seed	18 18	Num	ber of	188	1000	Seed	length siden
10	Pedigree	/ 1	or all the	6/1	18 / B	Linet.		73/	weight in	-	weight	ing /	8 B /	seeds per	fruit	1 de / 20	The state of	7	mm / B B
						10	/	mean	/ CV	/	/	/ 4	mean	/	1000	1 62	/ mean	1	1
10150	UF-654 UF-654	1978	05	23.5	1.35	7	40	2.13	10.3	1.35	16.4		31.5	26.7	0.74	0.073		03.7	
10152	DF-654	1978		190000	E CONTRACT	1000				-				-		PL STORY	24.5	-	
10153					1.00											8.077	24.9		
	UF-676	1978		25.6	1,23		42	1 1	18,2					1000		0.079	24.9		325.2
10154	UF-676 UF-613	1978		28.5			48	1.85	23.2	.99						0.076			
10158	UF-613	1000	TELESCO.	17.7	1.6	0.00	48	2.57	11.9	1.6	08.3	0.62	35.3	10000	0.74	0.039	27,6	700	0.51
10159							41	1.92	13.9	1,23		0.64	32.4			0.050	24,1		0.56
	A CONTRACTOR OF THE PARTY OF TH	1978		UPSERS.	1.76		300		119.0		09.5	-	100000			0.042	28.7	-	0.57
10150		1978			1.56		40		10.0	1.56	10.7		26.1		11.65		28.1		0.50
10161	The second second	1978	ELS PERSON		1,56		TO V	1000000	13.8	700	-		17258.0	8100		0.060	25,8		0.59
	UF =613	1978		10.0	1-62				12.07	1.83		0.55	32.5		0.01		28.0		0.58
	UF-613	1978		200	1.27	-0	42	2,11	11,1	1.27	14.8	-		-		0,054	25.5		0.49
10169		1978	0.8	29.4	.89		47	1,35	20,4	.89	19.8					0.077	22,9	08.2	0,48
10165	UF-667	1978	05	22.4	1.48	5	45	2.28	28.1	1.48	27.7	0.65	30.2	34.2	0.67	0.056	26.8	05.6	0.57
10166	UF-667	1979	02	29.5	1.15	2	911	1.89	119.2	1.15	09.9	0:61	29.6	23.6	D. 74	0.035	25.8	00.1	0.55
10167	UF-667	1978	0.4	33,4	.97	2	43	1,61	15,7	.97	17.1	0.60	30.8	26.6	0.72	0.038	24 B	05.6	0.57
10168	UF-221	1978	0.5	20.0	1.59	6	42	2,63	15.2	1.59	13.7	0.80	33.9	24.7	0.81	0.059	28,3	08.5	0.53
10169	UF 221	1978	04	21.8	1.32	6	46	2,13	15.0	1.32	16.7	0.62	34.7	18.8	0.75	0.071	25.9	06.8	0.55
10170	UF-650	1978	0.0	16.0	1-7	3	45	2.31	07.7	1,7	09.8	0.73	35.1	19.8	0.78	0.060	27.6	04.3	0.56
10171	UF-650	1978	04.	24.1	1.59	B	39	2.47	11.9	1.59	10,5	B.64	31.3	19.5	0.80	0.065	28.0	05.0	0.58
10172	UF -613	1978	0.4	29.2	1.39	5	35	2,19	09.7	1.39	11.5	0.63	24.7	18.6	0,71	0.041	27.4	03.6	0,47
10175	UF-650	1978	04	16.3	1,67	5	47	2.51	13.0	1,67	0.6.4	0.66	36.9	21.4	0.79	0.057	25.9	05.4	0.57
10177	UF-12	1978	03	21.6	1 /59	6	41	2.49	10.2	1.59	12.6	0.64	29.2	25.7	0.71	0.057	27,7	05,8	0.57
10178	UF-12	1978	0.3	22 - 0	1.46	3	39	2.35	10.2	1.46	10.5	0.62	31.1	18.6	0.80	0.062	27.1	07.7	0.54
10179	UF-12	1978	04	24.9	1,51	5	36	2,64	16.2	1.51	18.5	0.57	26.5	24.5	0.74	0,053	27.1	08.1	0.58

		Fruit / / 3	185
	Seed /	8 / 8 / Fruit wall / Fruit wall / 8 / 5	School State of State
		Fruit wall thickness at turrow in mm	1 / 1 m
Seed width Seed thick in mm	Fruit length / Fluit	in g ridge in min turrow in min	837
Seed width Seed think in mm	1 / 2/3/3/01 - 1 / 3 / 6	g / mean / Cr / /	~/
Jay Joseph Tov /	mean / CV / mean / CV / ce / 4 2	411 22.3 12.0 05.8 07.0 10.0 3083 9 8 5	
Mean CV / mean	0 0 + 0 149 09.6 074 04.9 0.50	su3 21,2 13.0 11.7 07.9 12.3 30C4 7	
150 13.4 06.7 07.1	0 0 + 0 170 10.0 085 07.4 0.30	919 31-6 11 9 07,5 07,0 10.0 2883 0 0	
151 14.7 04.0 10.0 04.8 0	0 + 0 0 190 15.7 080 10.0 0.55	401 37.2 11.0 11.0 06.0 13.8 2906 0 0 0	-
152 13.2 06.8 07.9 06.3 0	0 + 0 0 198 15.0 081 11.4 0.55	NH 33.3 12.6 11.9 08.0 08.7 2986 0 0 0	
153 13.2 08.3 08.7 08.0 0	0 + 0 0 146 12.6 081 08.2 0.55	200 28.4 14.8 19.6 09.6 18.8 2700	
13.5 04.4 08.2 14.6 0	0 0 + 0 211 11.8 098 07.1 0.46	3 6 1/4 08 7 16 7 20ER 7 1 0	
0155 14.1 06.4 10.3 09.7 0	0 0 0 0 157 1516 678 00.9 0.49	12.3 09.0 19.4 29CH 9 9 0	
0158 13.5 07.4 09.1 02.6.0	0 0 0 0 205 19:0 100 00:3 0:49	77 H 1H 0 17.9 08.2 15.8 30C6 3 0 0	
0159 16.3 07.8 09.8 00.6 0	201 10.9 088 11.4 0.44	10 6 11.4 06.3 13.6 2904 2 0	
0160 14.1 05.7 10.9 06.4 0	0 0 + 0 156 14.5 078 09.9 0.50	7 7 17 A 18 6 88 5 13 8 30C5 9 7 1	
0161 15.3 05.1 10.2 07.9 0	0 0 185 07:5 075 05:2 0.52	07 H 11 3 11 5 07,4 13 1 3083 1 5	
10162 16.1 86.1 89.9 83.0	0 0 4 0 185 19.2 080 0A.9 0.43	496 27.9 12.0 07.4 07.2 10.8 30E6 0 0	0
10163 12.4 09.1 09.9 08.2	0 0 + 0 0 215 13.9 075 09.6 0.35	20 2 11 5 08.7 06.1 16.4 2983 2	0
10164 10.9 06.3 09.0 07.1	168 12.4 086 08.1 0.52	341 25 5 10.3 11.5 12.2 2983 3 0	0
18165 15.3 09.5 09.6 12.5	0 0 + 0 172 14.5 098 11.2 0 57	2906 4 4	0
10166 14.3 08.4 08.8 10.2	176 13.6 096 10.4 0.55	570 24.1 10.9 13.0 07.8 14.1 29C5 0 0	0
10167 14.1 05.0	157 09.2 086 08.4 0.55	or 0 10.8 13.4 07.1 13.3 29E7 0 0	0
10168 15.0 05.3 08.9 11.9	0 0 0 + 0 139 19.8 088 09.0 0.63	407 20 11.6 10.7 06.2 13.5 3083 0 0	0
10169 14.2 05.7 08.8 06.5	0 0 0 17B 13.0 9B6 06.0 0.4B	30 0 10 8 09 2 06 4 14 1 2983 W	Ü
10170 15.4 06.8 09.2 08.5	197 10.7 086 07.0 0.58	77 2 13 8 13.0 09.7 13.4 2906 9 9	8
10171 16.1 05.6 09.1 13.2	10 4 0.62	17 17 17 17 17 1 08.4 15.5 3003 1 1	0
1 2 0 5 09.4 09.6	196 11.7 085 11.8 0.43	648 17.5 12.6 11.5 07.9 16.5 2804 0 0	0
7 04 1 10.3 11.7	0 0 u n.54		
10177 15.8 04.4 10.6 10.0	187 18 5 085 10 6 0,56	10 4 07.1 12.7 2000	0
10178 14.6 96.8 89.7 86.2	0 0 0 + + 0 163 12.9 082 08.5 0.50	505 24.8 11.3	
05 1 10.2 08.8	0 0 + + 0		

		100	I	1			Fr	uit	,	/						1	lower						
/	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	THE STATE OF THE PERSON NAMED IN			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_	rie length n mm	/0	vary leng		vary wid	n /s	taminode length in mm	/8	ipal léngti in mm	/s	epal width		gule lengti in mm	Ligure width in mm
/13	1/4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	82/2		3			mean	/ C1	mea	n/cv	mea	n/cv	mea	n/cv	mean	/ cv	mean	/cv	mean	/ cv	mes	/cv /
10150	5	0.67	3	3	5	1	3	2.20	0,21	1.43	0.11	1.03	0.06	7.92	0.31	8,23	0.40	2.04	0.09	7.80	0,48	2.73	0.22
10151	0	0.62	7	3	6	0	3	2.24	0.08	1.30	0.07	1.02	0.04	7.78	0.56	10.37	0.58	2.35	0.26	7.69	0.57	2.50	0.38
10152	0	0.50	4	3	3	1	3	2.13	0.15	1.43	0.11	1.03	0.08	7.68	0.47	8,67	0.60	2.15	0.17	8.49	0.63	2.47	0.29
10153	U	0.80	8	3	3	3	3	2.78	0,027	1,16	0.09	0.99	0.05	7.69	0/56	8.87	0.32	2,16	0.18	7.54	0.51	2,25	0 28
10154	0	0.70	4	3	3	1	3	2.45	0.19	1.27	0,12	1.02	0.05	7.27	0.31	9.05	0.30	2.06	0.15	7.57	0.36	2.17	0.26
10155	7	0.79	3	3	5	0	3	3	0.15	1,29	0,14	0.98	0.05	8,45	0.52	10.04	0.48	2,34	0,19	8.50	0.42	3,11	0.20
10158	D	0.71	3	3	3	3	3.	1,63	0.15	1.24	0.14	0.95	0.05	7,23	0.35	8.40	0.AL	2.02	0.10	6.67	0.56	2.23	0.23
10159	-0	0.60	6	3	7	5	3	2,19	0.09	1,48	0.03	0.97	0.07	7.73	0.36	0.85	0.68	2/49	0.23	0.99	0.69	2,73	0.23
10160	0	0.70	6	7	7	5	7	1.77	0.22	1.42	0.11	1.02	0.05	7.12	0.29	8.95	0.56	2.41	0.18	8,50	0.69	2.85	0.19
10161	0	0.65	3	3	7	3	3	2.3	0.21	1.4	0.09	0.98	0.05	7.4	0.22	8.8	0.42	2.1	0.22	7.4	0,44	2.5	0.21
10162	0	0.82	6	3	5	D	3	2,42	0.18	1.29	0.12	0.97	0,05	7.34	0.69	8.71	0.49	2 23	0.09	7.90	0,55	2/99	0.41
10163	0	0.69	5	7	a	7	3	1,98	0.29	1:20	0.13	0.97	0.06	7.09	0.36	7.29	0.34	2,22	0.23	6.40	0.51	2.17	0.17
10164	0	0.63	7	7	9	5	3	2.25	0.16	1.15	0.15	0.91	0.12	7.40	0.39	9.10	0.54	2.43	0,26	7.39	0.50	2.27	0.24
10165	0	0.63	4	7	5	5	3	2.07	0.54	1.32	0.15	0.91	0.07	7.65	0.32	11.13	0.49	2,47	0.40	8.83	0,44	2.39	0.22
10166	0	0.61	1	3	3	D	3	1.84	0.12	1,02	0.05	0.93	0.04	6,51	0.56	8.03	0.70	1.09	0.21	7.70	0.40	3.04	0.12
10167	0	0.66	2	3	14	ū	3.	2.56	0.10	1.16	0.13	1	0.04	7.83	0.91	9.65	0.59	2.57	0.19	8.39	0.75	3:49	0.167
10168	0	0.60	3	1	5	2	4	1.98	0.29	1.37	0.10	1.02	0.04	7.34	0.40	9.02	0.84	2.32	0.24	7.72	0.86	2.09	0.13
10169	0	0.64	3	3	1	0	3	1.78	0.18	1.36	0.10	0.98	0.04	7.28	0.29	8.61	0.49	2.03	0.12	7.98	0.56	2.07	0.18
10170	0	0.72	7	5	7	5	3	1.95	0.05	1,46	0.07	1,03	0.05	8.72	0.23	7.22	0.59	2.07	0.17	9.78	0.28	2.26	0,22
10171	0	0,71	5	5	3	5	3	1.08	0.13	1.27	0,15	0.96	0.00	7.5	0.23	9.2	0.61	2,1	8.12	7.0	0-60	1.9	0.09
10172	0	0.65	3	3	1	3	3	2.12	0.18	1,40	0.11	0.99	0.06	7.05	0.35	8.76	0,53	2.41	0.29	8.03	0,44	2.64	0.22
10175	0	0.47	3	5	7	7	3	2.28	0.16	1.30	0.08	1.03	0.05	8.21	0.26	9.56	0.47	2.32	0.21	7.83	0.45	2.31	0.16
10177	9	0.70	2	3	3	2	3	1.97	0.13	1 26	0.19	0.98	0,08	7.0	0.34	9.12	0.48	2.2	0.20	7.0	0.51	2/5	0.33
1017B	0	0.51	2	3	3	1	3	1,69	0.20	1,44	0.07	1,00	0.04	7,62	0.53	9.26	0.50	2.01	0.00	7.32	0.62	1 93	0.10
10179	0	0,59	6	5	7	3	5	1.97	0.11	1.28	0.14	0.99	0.06	7.6	0.64	8.8	0.53	2.2	0,19	7.5	0.61	2.0	0.10

		E I		/	-	Flower	E.	14	af /	333	Compatibility and resistance
		/	and la	0/2	1	15	1		11	TA	And a paint world References Agenticided References / Ref
/3	/	STOR FIN	Series Series	1	at laid	sorte dict	"col	1 /3	Referen	ces /	References References References References References References References Notes
13	* SCO.	100	Se Se Se	100	"HOEK"	Surece Surece	5		/	year	And the state of t
10150	$\overline{}$	_	11A4	7	30A3	10E8	10	/	18	6.	101 181 101
10151			1044	7	2904	807	+	Р			
10152	_	7	9A3	_	30A4	807	_	-	100	1000	
10153		7	8A2		2904	805	0	17	R	36	
10154	0	-	10A2	0	30A3	8C7	U.	13	IK.	20	
10155				7		9E8					
0.00000	_	-	10A3	-	-	907		-	N 1990 20	067	THE RESERVE OF THE PERSON OF T
10159			10A3		2944	907					
10160	pe		10A5	0	3005	908					
10161					30A4	908		Р			
100000	_	_	12A3	-	-	9D6	-	-	SECRET	100	
10162			10A2								
10163	3		10A3	588	30A4	705	200	Call			
10164			11A5	0	30B5	706					
10165	ь.	-	10A4	3	30A4 29A4	706	-	esten.	20200	100	
10166			12A2			808					
10168	r		10A3	-	-	707				100	
10169			10A4 10A3	0	30A3			h7 D			
10000				0	29A4	708	7	43, P		- Ti	
10170		0	11A3	0	29C4	706		p			
VE 26500	P	100	30A4	200	COORES	505	116		S. Carth		
10172	100			3	3005	8E8					
10175	ь.	-	10A4	-	30A4	605	4	11.7 F	100		
10177			11A3		30B5	907		43.P			
1000000	P	1200	11A3	on.	3084	907		47.0	-		
10179	3	0	10A3	0	30A4	1008	+	43,P			

						General				
IN.	2000	and act of	1000	Accession name	Synonyms Coun	n / 3	Political Locality of origin origin	13	Name of collecting source	/ Leg and a series
10100	D	10-11	6	CC-143	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
10181	C	20-21	8	CC-144	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
10182	C	20-21	4	CC-152	COSTA RICA	LIMON	28 HILLAS	3	LA LOLA	1
10134	C	20-21	6	CC-169	COSTA RICA	LIHON	28 MILLAS	3	LA LOLA	1
10105	C	20-21	3	CC-173	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
10183	G	32	12	CC-210	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10198	E	26	5	CG-211	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10189	6	33	11	CC-211	COSTA RICA	CARTAGO	TUNRIALRA	3	CATIE	1
10190	G	34	6	CC-212	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
10171	E	19	5	CC-212	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10192	E	18	7	CC-213	COSTA RICA	CARTAGU	TURRIALDA	1	CALLE	
10193	G	36	11	00-213	COSTA RICO	CARTAGO	TURRIALBA	3	CATIE	1
10195	G	35	10	CC-215	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10201	E	14	9	CC-224	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10202	E	13	9	CC-225	COSTA RICA	CARTAGO	TURRIALDA	3	CALLE	7
10203	E	12	8	CC-226	CUSTA RICA	CARTAGO	TURHTALBA	3	CATTE	
10204	J	27	6	CC-228	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	2
10205	E	11	8	CC-231	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	2
10206	E	10	8	CC=232	COSTA RICA	CARTAGO	TURRIALDA	3	CATTE	
10207	E	9	8	CC-234	COSTA RICA	CARTAGO	TURRIALDA	3	CATTE	2
10208	E	8	8	CC-235	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	2
10209	E	7	8	CC-236	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10211	1	25	5	CG-240	COSTA RICA	CARTAGO	TURRIALBA	3	CATLE	
10212	3	24	6	CC-291	COSTÁ RICA	CARTAGO	TURRIALBA	3	CATTE	
10214	E	6	9	CC-244	COSTA RICA	CARTAGO	TURRIALRA	3	CATIF	

THE PE			General			1	Pr	oduction		/					Seed				
	1 1		/		=/	۰	/	//	/		1		1	//	1	13	8 18 / a	881	
/	Padigree Padigree	-113	and specialist	a de de la constante de la con	/	1	/2/	(0.47)	Wet	need	/ or	y seed	Jard de	Nun	ber of	1000	Sept Sept	Seed	length 185
12	Padigree	/	38/	30/ 3	100 / 4	N. Code	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		weight i	-/	weight		ASTO BEN OF	seeds pe	r fruit	AUTHUR 10	Ber Bar	in	mm Jago Land
						1	6/ 6	mean	1	1	1	-	mea mea	1	100	1 de	mea	1	1 , 4/
0180	UF-672	1978	04	26.8	1,24	4	40	1.95			12.9		30.1			0.059			0.63
	UF-676	1978	-	THE REAL PROPERTY.	1.68	-	45	2,76	06.3	1.68	05.6	-	32.8	-	-	0.065	27.3	03.1	0.53
	UF-12	1970			1 34			2.25	15.1	1.34	18.9					0.053		07.1	
	UF-677	1978	_	-	1.28		47	2.14	15.3	1.28	19.3		_	-	-	0.071	_	02/4	0.59
0185	UF-65	1978	0.6	23.1	1.35	4	40	2.39	17.8	1,35	14.4	0.56	32.1	19.0	0.80	0.049	26.7	04.5	0.55
0189	SCA-12	1979	05	29.6	, 94	6	49	1.53	14.4	. 94	17.7	0,62	35.9	26.2	0.73	0,080	23.7	06.8	0.49
0188	IMC-67	1980	05	35.4	69	4	57	1,09.	10.4	69	97.7	0.64	40.8	26.0	0.72	0.074	21.1	09.5	0.45
0189	IMC-67	1979	0.6	34.8	-77	5	60	1.19	17.4	.77	15.5	0,65	37.2	36.3	0.62	0.079	20.0	04.0	0.59
0190	P-150	1979	05	31.0	.89	7	47	1.31	13.7	.89	12.8	0.68	36.4	20.9	0.77	0.105	21.6	05.6	0.54
0191	P-150	1981	01	33,6	. 85	2	46	1.21	06.0	, 85	07.1	0.70	35.1	25.6	0,76	0.087	22.3	05.8	0.51
0192	IMC-67	1980	07	39.6	-74	3	49	1,19	07.9	.74	13.5	0,62	34.1	24.0	0.70	0.093	21.0	04.8	0.52
0193	IMC-67	1979	0.5	29 3	-99	14	97	1.68	16.3	.99	22,1	0.59	34.4	29.4	0	0.045	22/8	05.3	0.57
0195		1979	05	36.4	.71	7	51	1.23	12.0	.71	09.0	0.58	38.9	23.9	0.76	0.087	20.5	06.3	0,55
0201		1980	05	30.3	, 95	3	48	1.59	17.6	, 95	15.5	0.59	34.9	26.6	0.73	0.081	22.6	06.2	0.52
0202		1988	05	43.1	169	5	52	1.13	11.2	.69	11.5	0.62	33.5	31_0	0.64	0 079	22,3	06.3	0,40
0203		1980	0.5	26.7	-97	5	48	1.5	10.2	.97	12.4	0.64	38,7	16.5	0.81	0.048	22.8	04.8	0,50
0204	SCA-12 X ICS-6	1980	05	18.1	.76	5	57	1.25	16.0	.76	13.2	0.61	42.1	21.6	0:74	0.086	21.9	07.3	0.47
0205	SCA-? X ICS-6	1980	07	28,4	.99	3	54	1.51	11.5	. 99	12.2	0.65	35.8	29.0	0.66	0.069	22.6	06.2	0.50
0206	THE PERSON NAMED IN	1980	05	31,7	.99	6	47	1.53	13,1	-99	14.9	0.65	31.1	30,9	0.66	0.053	23,9	05.4	0.44
0207	SCA-6 X ICS-39	1980	11	23.5	1,21	3	48	2,17	13.2	1.21	13.2	0.56	35.0	24.3	0.73	0.054	27.9	07.9	0.46
0208	ICS-1 X SCA-6	1980	11	36.0	.73	5	45	1.11	09.6	. 73	09.2	0.65	38.2	14,4	0,85	0,078	21.2	09,0	0.46
0209		1980	06	20.5	. 79	5	50	1.33	12.6	.79	10.2	0.59	38.4	26.6	0.77	0.070	20.8	07.7	0.54
0211	Call Charles	1980	07	25.5	.07	3	63	1.27	12.1	,87	13.1	0.68	45.2	24.3	0.72	0.099	22.4	07.6	0.52
0212		1980	07	25.6	1.11	2	5.0	1.7	10.2	1.11	12.0	0.65	35.3	32/0	0.71	0.060	23.6	85.9	0.55
0214		1980	05	24.0	1.07	7	48	1.77	17.3							0.065	24.1	06.2	0.49

			/					Seed				/			15			F	uit						
/	mear	d / s	ed width	/	ieed ti	hickr	ness/	100	Cotyle	edon colo	1 5	ruit leng in mm	th /	Fruit wid in enm	th Add Add	Service Services	O BE F	ruit weigh in g	thi	Fruit wal	/ thi	Fruit wo	11/2	Jan Se L	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
THE.	mean	/cv	mez	m/0	v/	13/	(3)		1 × 1 × 1	mean	1/01	me	an C	1/00	8 / 45 B	me	in CV	mea	n/cv	mea	n/cv	1	5/		
180	22.00	- 72	09.1	11.0	0 0	0	0	+	0	157	05.6	085	09.4	0.54		513		12.3	14.6	08.2	18.3	2905	2	0	0
181	14.6	04.8	09.7	10.	3 0	0	0	+	0	143	13.3	087	10.3	0.61		505	32.1	11.0	13.6	07.1	14.1	29B3	0	0	0
1182	14.4	87-6	09.7	110	5 0	- 0	8	3	-0	180	10.5	0B5	08.2	0.47		645	28.1	12+0	8-82	0.7 .4	12.2	2905	0.	0	-19
1184	14.7	02.7	10.4	0.8-1	7 ()	0	0	+	10	172	12.2	003	69-8	0.48		501	27.7	11.5	11.3	07.5	10.7	39E5	8	0	ů.
0185	14.6	10.3	09.5	11.6	5 0	U	+	+	0	183	09.3	090	08.9	0.49		661	25.7	15.5	03.9	11.0	07.3	2984	0	0	0
0184	11.7	08.5	08.0	08.8	3 0	0	+	0	0	166	11.8	081	11.1	0,49		449	26.1	12.3	13.0	07.5	16.0	29E6	0	0	0
0188	89.9	ff 5	08,4	15,5	5 0	0		U	.0	173	14.5	083	15:0	0.93	0.40	54 #	39. 2	11.4	15.3	06.7	19.9	3aFn	10	Ü	0
0189	10.8	05,6	00:1	119 ,5	F 13	0	0	*	n	107	06.5	0.75	12:0	0.40	0.50	9.53	34.5	30,4	15.4	0.6 - 3	18.4	2910	0	9	0
0190	11.6	05.2	08.0	11.3	5 0	0	+	0	0	150	10,0	075	08.0	0.50		347	24.8	09.1	13,2	05.1	15.7	3006	0	0	0
0191	11.4	06.1	07.4	06.8	3 0	0	+	0	+	156	12.2	078	07.7	0.50		402	28.9	10.2	13.7	05.8	13.8	2904	0	0	0
1192	11.0	05,5	07.5	06.7	7 0	D	+	+	11	157	12-1	076	98.5	0.48	0.50	366	26,5	30-0	10.0	05.7	15,8	3000	0	0	0
0193	13.1	05.3	09.2	12.1	1 0	0		.0	0	184	10,9	078	14.2	0,40	0.50	5728	35.4			07.1			0.	0	0
	200 +		08.0			0	+	0	0	177	10.2	078	06.4			447		11.3					0	0	0
		-	07.9	_	_	_	+	+	0	166	11.4	080	08.8	-	0.48	430	23.5	12.3	_	07.5		2907	1	0	0
0202	09.0	08,9	07.1	07.1					0		11.1	077	64.5		0.52	424		11,0				29EU		0	
0203	-	03.9	00.4		_	_	-	0			11.4	080	09.6	0.40	0.53	487	29.4	13.9	_			29EA		0	
	1337.1		07.1					0	0	175	13.3	085		0.47		519				07.1		29E7 28E8	0	0	
	10.6		07.7				_	_		169	10.0	087	00.9	-	0.51	593	25.7	13.1	09-2	89.1		2000	0	_	0
0207	12.9	05.4	08.6					9		202		090	05.6			654	24.5	13.5		06.4		2005	0	0	-
			07.4		-		0	+		199	08.5	077		0.39		491		11.7				2908		9	
	185.9		08.3				+	+	0	197	14.7	081	07.4		0.56	548	26.8		12.7	08.2	17.1	2904	3		
	11.7	06.8	07.1	07.0	_	. 0		0		161	11 4	000	-	0,50	0-52	455	71.1	10/2	17.6	86.5	15,4	2907	0	0	0
			09.4	11.7	7 10	0		ñ	0	189	11:4	000	07.0	0.46	0.50	585	23.8	13.0	14.6	07.3	1857	30E8	n	0	0
0214	11.7	06.8	08.5	10.6	5 0	0	+	0	0	208	08.9	084	08.0	0.40	0.47	599	21.0	12.4	10.5	07.5	10.7	2904	0	0	0

				1			Frui		1							F	lower				-		
1	1	The state of the s	10 mg/	11/11/11/11	5/2	\S \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$ / S			length mm		ary length		ary width	/	taminode length in mm		al length		pal width		le length	Ligule width in mm
130	100		A / 1	100	13	\$ / S		mean	/ cv	mean	/cv	mean	/cv	mean	/cv	mean	/cv	mean	/cv	mean	/cv	mean	10V/
		0.71	3.	2	5	2	3	1,88	0.18	1.40	0.07	0.99	0.03	8.09	0.42	9.78	0.54	2.35	0.20	8.32	0.59	2.70	0.30
0130		0.66	3		3		3	1.99	0.09	1.53	0.07	1.13		6.95	0.20	7.84	0,40	2.23	0.22	6.92	0.39	2.01	0.16
	_	11.64	3	5	3	_	3	=.00	0 1	1,29	0.07	11 99	0 04	7.74	0/42	9.29	9.90	2 15	0.14	Y. 19	0.47	2.34	0.10
0182			7	7	3	75		2.82	0.12	1.44	8,09	0.04	0.05	7.46	0.26	9.13	0.57	3733	0.10	7-112	0.61	2.33	0 10
0184	_	0.69	4	3	5	4		2.35		1.33	0.10	1.02	0.04	8.12	0.13	8.79	0.31	2.19	0.18	8.04	0.27	2.84	0.34
0185		0.74	2	3	6		3	2.54		1.21	0.13	0.99	0.04	7.08	0.30	8.49	0.38	2,16	0.21	6.75	0.67	2.74	0.25
0186	0	0.54	-	-	-	1		12.22	0.20	1,40	0.15	01.99	0.04	7.21	0.90	U.45)	0.52	2,68	n 35	7.62	0.28	2.79	0.21
0199					7	1		2) 25	11.15	1.31	0.17	1.01	0.06	7-32	0.42	B 18	0.06	2.58	0.22	7.45	0.36	2,38	0.29
0189	0	0.70	5	5	100	1		2.60	0.10	1.30		1.00	0.05	7.65	0.34	7.60	0.50	2,40	0.40	7.30	0.50	2,60	0.10
0170	0	0.49	3	5			5	2.20	0.21	1,33	0,11		0.05	8.33	0.39	8.66	0.23	2,27	0,20	8.10	0.39	2.48	0.38
0191	0	0.76	.3	-	4	2	-	2.27		1.24	-	0.98	0.04	7.19	0.28	7.64	0.44	2,16	0.15	7,25	0.28	2.45	0.24
0192		0.90		4 =	6					1.52	8,11		0.06	7.33	0.38	8.56	9.50	2.32	0.24	4.58	0.31	2.08	0,17
0193	P	0.42			-			2,35	0.22	-	0.12		0.05	7,63	0.71	7.34	0,26	2.14	0.19	7,29	0.42	2.35	0.20
0195	0	0.70		5		1		2,44	0.23	1.44		0.98	0.04	8.12	0.47	8.84	0.32	2,60	0.28	8,15	0.39	2.89	0.16
10201	0	-	-	-	5	.0	1	2.75	0.20	-	-	-	TO SHARE	-	0.20	8.82	0,43	2.46	0.28	7.77	0.52	2,93	0.23
10202	0	0.71			5 -6	3	2		0.14			1.01	0.03	8,64	0.56	9.87	0.60	2.61	0.20	7.39	8.39	2.93	0.12
10203	0	0,84			5	-	5	2,37	10000			7	-		0,39	8.03	0.91	2.38	0.23	7.14	0.84	2.59	0.23
10204	0	0.77			6		5	2.45					0.04		0.38	8.42	0.32	2:26	0.26	8.13	0,36	2,65	0.26
10205	ш.		_	_	5	_	_		-	-		0.71	0.04	7.07	0.30	8.71	0.42	2,72	0.23	7.61	0.156	3.50	0.32
10206	0	0.59	2	2	5		7	2.36			0.07				0.56	8.46	0.43	2.49	0.21	8.97	0.60	3.09	0.15
10207	0	0.75		-		3	-	2,51		2011			NAME OF TAXABLE PARTY.	-	0.30		0.63	2.17	0,23	6.89	0.53	2.25	0.22
10208	5	0.70	3	2	8		3	2,42			0.09				0.57		0.56	2.55	0.21	7.22	0.35	2.87	0.16
10207	0	0.79	3	4	6	_	_	2.34	_	-	-	-	0.05	-	0.25	-	0.54	2,45	0 26	6.70	0.55	2.45	0.22
10211	0	0.74	2	4	3	1	5		0.23			1-13					0.46	2,52	0.27	5.87	0.43	2.28	0:28
10212	· ·	0.80	5	7	5	. 1	7	2,35								8.43	0.61	2.54	0.31	6.59	0.36	3.11	0.29
10214	0	0.63	5 4	2	8	1	7	2.19	0.21	1.35	0,11	0.41	0.00	GITE	9,50								

FE	H			/	F	Tower Lest Compatibility and resistance
/	1	S. E. S.	# / B	0/4		Bet de de la
138	1	Sign !	1 1 cg	2/	THE SHARE	set set / se
10180	-		11A4	0	30A4	SEB + P
10181	3	0	10A4	0	3004	8D8
10182	3	7	1044	0	3004	706
10184	3	7	11A3	0	30B4	BEB
10185	7	7	10A3	0	2904	807
10186	3	0	10A2	0	30A4	5C5
10188	3	7	10A2	0	2904	607
10189	3	3	10A2	0	29A5	707
10190	3	3	9A3	0	3004	484
10191	2	0	11A4	0	2805	606
10192	3	3	10A2	0	2964	807
10193	7	7	11A5	0	3084	206
10195	3	0	10A2	0	30B5	707
10201	7	0	10A3	0	3005	8C7
10202	7	0	10A2	0	30B5	807
10203	0	0	142	0	2985	607
10204	3	3	10A4	0	2904	907
10205	7	0	10A3	0	30B5	7D7
10206	3	0	10A3	0	2904	807
10207	0	0	10A3	U	3084	606
10208	7	0	10A5	7	30B4	808
10209	3	0	10A2	0	30B5	707
10211	3	3	142	D	2905	707
10212	1	0	11A3	0	2804	6D7
10214	7	0	10A4	0	30A4	808

			Sec.		a market to the same		General				
TUR	Signal State of the State of th	arida ad	a readily	Accession na	me Synonyms	Cou	THE STATE OF THE S		origin	Name of collecting source	AND STREET
0215	E	5	9	CC-245		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0217	E	3	9	CC-249		COSTA RICA	CARTAGO	TURRIALDA	3	CATIE	1
0219	E	1	7	00-251	ALC: NO	COSTA BICA	TARTAGU	TURRIBLEA	13	PATTE	3113
0221	1	21	8	UC-253		LUSIA MICA	CARTAGO	TURKIBLUA	- 2	CATTE	
11222	J	20	7	CC-254		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0234	J	18	8	CC-256		COSTA RICA	CARTAGO	TURRIALEA	3	CATIE	
0225	3-	17:	5	CC-257		CUSTA RICA	Lagrago	TURRIALBA	3	THIE	-
0226	EX	13	4	£0-258	H.PLA. F. HAC-2	ECUATION	LUS RXIIS	QUE VE. DO		- PICHID INOUE	2
0227	EX	13	ц	CC-259	H.22 A.3 NAC-1	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.	2
0228	EX	13	4	CC-260	H.21 A.1 NAC-3	COSTA RICA	LIMON	ZENT	- 2	UNITED FRUIT CO.	2
8229	EX	13	4	00-001	H-22 A A HAC 3	COSTA NICA	LIBUN	TERR	- 1	SWITED CEDIT CO.	72
0230	EX	13	4	CC-262	HIZI 60 8 MAC-3	LOSTA RICA	Linum	ZENT.		DATTOU FRUIT CO	2
0231	EX	13	4	CC-263	H.21 A.1 NAC-2	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.	2
0232	EX	13	4	CC-284		COSTA RICA	CARTAGO	TURRIALBA	3	CALLE	
0234	B	12	8	CHUAD-120	CHU	VEHEZBELN -	ARAGUA	CO THART	" 3	ESTAC. EAR. OCUMARE	1
0236	H	51	6	CNS-25	6W5.2/3	VEHEZUELA	Ballinas		- 2	THICA CARD HIDRO	
025P	Α	10	11	COMUN TIPLEO		BRASIL	BALLIA	LIVISTAV	3	CEPEC	
0243	G	37	10	C.SUL~3		BRASIL	AMAZUNAS	RIO JURUA	***	GUAJARA	
0245	G	38	-11	C.SUL-7		BRUSIL	AMAZUMAS	WED JURDA	3	OUR JARR	393
0251	G	21	18	DIAMANTEL-BOO		CHETA RICA	L Char	BURPALES.		LOS DIGMANTES	
0254	G	15	14	EEG-25		BRASII.	ESPERITO SANTO	BATXU RIO DUCE	خ	GOTTACAZES	
0255	н	32	14	EEG-27		BRASIL	ESPIRITU SANIO	1004-018-02140	_;	GOTTACAZES	
0256	H	33	9	EE0-29	THE PARTY OF THE P	linasm.	CHRISTIC SAND	BAIRD BID DROE-	7	ROTTABAZES	
0257	11	39	9	E1,6-00		DRASIL.	F-PPRITU BANTO	BAIRO FOR DUCT	- 1	UIT PACAGES	
10258	Н	35	11	EEG-64		BRASIL	ESPIRITU SANTO	BAIXO RIO DOCE	3	GOITACAZES	

/	Genera	1	Production	Seed	
14	/	/3//	///	/ //	13/20/20 /
Type described regards Pedig	Total of References		Wet seed	Dry seed S Number of	Seed langth in mm seed langth in mm
Pedig	00 / 50 /	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	weight in g	weight in g	State of the state
			mean / CV / mea	1 1 4/ / / /	
(9215)	1980 07	71.8 1.15 6 49		10.4 0.A5 39.8 (H 8 0.8)	
10217 PA 12	1980 07	31.2 1.01 5 42	1.65 15.6 1.01	and the second second second	
10210	1900 03	27.9 1:15 5 40	1.97 17.3 1 13	17.1 0.58 51.6 26.0 0.79	0,000 25-0 06.8 0.52
10221	1980 05	34 2 (85 5 5)	1.30 12.0 /85	11.8 0 01 30.5 20.9 0 75	0.088 22.5 06.2 0.50
10353	1.581 0.5	37 7 79 2 117	1,28 15.10 .79	13,4 0 8 0 38 5 21 0 82	0.074 22.6 04.9 0.50
10224	1980 05	34.1 .81 7 50	1.29 12.9 .81	08.3 0.67 56.4 35.0 0.73	0.070 23.4 05.1 0.46
10220	1900 05	29 1 1.17 2 40	07.0- 07.0-1.47	10. V 0.50 05 5 19.2 0.78	0.055 23.0 00.0 0.53
10026 MAC 2-	1777 12	10.33 1.12 5 98	171 113 1.17	14.5 0.88 34 5 28 1 0.72	0.059 24.1 05.0 0.51
10227 BAL	1858 17	90.00 1.35 3 08	A 1 15 A 1 39	De 3 0 m 7 0 01 s 0 77	0.074 25.7 04.7 0.58
10228 -NAC //	Leve to	20.0 1.34 % 9/	5 40 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	16. 0.69 37.9 10.9 0.56	0.073 26.0 04.8 0.57
10229 MAC 3	1980 01	1276 1 - 5 4	10 10 1 10	13.6 0.00 -175 At. 5 -0.78	0 074 24.5 06.3 0.36
102X0 MGC-3	1979 12	29.7 1 19 7 99	(()) ((0),) () <u>19</u>	10-9-0-60 -09-7-33-2-0-71	0 068 24 9 00,7 0,57
10233 NAC "	[0.50]	74.5 1.1 5.50	D 2.5 100 F 17	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0A5 23.7 05.7 0.51
10000 101 19	1500 1.	The last was the	()/(F)/(F = 10 (F)	17 0 0 = -7 1 22 1 0 73	0 071 22.4 05.0 0.61
10234 CHUAO CRIOLEO	7444 00	10.0	1.79 21.4 .75	0 0 0 0.20 , 0 19.1 0.83	0.037 21.5 07.4 0.50
10236	1980 07	16-0 (160-4-97)	3,07 1271 1 60	() B B. GS 37 1 Phys. B 79	0 000 27.1 10 8 0 57
10237		1 0 81 2 10	to be the original	Many or 2 off a fine to be started	0.10% 21.5 7.0 0.52
10293	$v_1, v_2 = -\omega_1$	99-1	10.0 - 20	10 - 0 20 c 90 0 - 1 0 0 0	0.110 20.7 04.6 0.36
10345	TALK KI	W210 41-3-W7	T 0 1 1004 -	TO THE MAN AND WAR BOTH	0 0/30 19 5 07 5 0 51
1825). (C\-) = SCA-0		11.6 1 03 1 11.	Lat. 197 V P 89	11 2 1 68 48 5 7 4 4 1 79	0 080 28 040 0 53
1.00590				200 v n	0 100 01 1 05.7 0.56
10255	1 2 2 - 02	10 1 10 10	Y 46 - 69	$0 \leq \tau \leq 0 \leq 0 \leq \tau \leq \tau \leq 0 \leq \tau \leq \tau$	0.003 23.2 04.4 0.50
10250	- (07W)A-	22-6 3 2 50	1 1 1 1 1 1	13.72 man 30 N 20.0 0.77	0.085 21.7 05.8 0.50
10257	TALA IN	50.9 1 50	1 50 00.0 .98	00 2 0 04 70 7 20 1 (0.77	0.079 3.7 07/5 0.52
10754		The Parity NV	V 0 0 0 1 1	W 2 0	0 002 24.3 06.7 0.52

			1				S	eed				1		7		1000		Fr	uit		33	138			
1	mean	1/50	ed width		ed thi		"/	7	Cotyle	don colo	-/.	uit leng	th /	Fruit widt	th Just of Sales	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C 18 / F1	uit weigh	thin	Fruit wall		Fruit was kness at in mm	1/3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
138	mean	/cv	mean	/ cv	1					mean	/ cv	me	un CV	10	8 4 4 B	8 3 /m	n/cv	mass	/ CV	mean	/ CV	1	1	10 /S	E / 18 21 /
10215	12.5	03.2	08.4	08.3	0	0	+	0	,	210	09.6	882	07.9	0.39	0.47		23.4	12-9	15.6	8.80	23.5	2904	0	0	0
10217	11.8	05.9	08.8	09.0	ŋ	0	+	4	0	169	08.6	079	05.9	0.47	0,49	404	18.1	10.8	10.2	05.9	16.9	2904	0	0	0
10217	12.9	05.4	08.6	27.0	-	D)	-		15	193	AR (II	0.00		10 144			2012		09:1				0		
10221	11-2	07:1	07.1	00.5	0	0	-	+	.0	101	50.5	10.7%	80.0	0.45	9 50	395	15.1	U8 3	12.0	86-5	15,4	91108	9	7	4
18222	11.2	06.3	07.7	07.8	0	0	+	+	Ü	196	10.2	078	05.6	0.40	0.49	517	30.8	12.7	15.0	06.5	15.8	3008	8	7	5
10224	10.8	04.6	07.5	08.0	0	0	+	0	0	180	14.7	087	04,5	0.48	0.48	522	20.6	13.0	09.2	08.5	10.6	2808	.0.	0	0
10225	12.7	04-7	09.3	46.3	0		+	11	-0	145		1100		11_14			25.0	1200	10-10		10 1				
10226	1216	09.5	08.4	011,2	0			0	0.	1.66	12:4	0157	11.0	0.50	0,50	500	8212	13.4	15.2	07.5	20.0	2904	1	-0	0
10227	14.9	06.0	08.5	14.1	0	0	+	0	0	149	15.5	083	10.3	0.56	0.50	502	40.5	1,1,1	19.8	06.4	25.0	29B3	2	0	0
10228	14,7	07.1	08.1	09.8	0	0	+	0	0	151	12.1	089	10,2	0.59	0.52	511	29,4	11.9	12.7	06.4	20.0	29E8	Ī	0	0
10229	15.6	02.1	03.4	13.1	11	0	4.	0	0	1947	18.0	Ditto	10.9	W.5-	0.00	H-0.1		11.1	10-1		21.2	2900		0	9.
19230	19.3	03.9	NB+5	12,2	- 0	10.	1	W.	u	150	16.1	0.00	125	0.50	6.44	510	44-3	11 9	21.0	08.51	26 3	5602	2	90	0
10034	12.1	07,1	08.7	11.2	0	0	+	0	0	164	11.4	090	10.8	0.55	0.50	603	28,7	13.4	14.4	07.4	20.7	2983	0	σ	0
10232	13.6	04.6	08.9	16.3	Ö	0	+	0	0	167	12.7	084	09.7	0.50	0.50	526	33.0	12.2	17.8	07.0	22,8	29D8	9	9	5
10234	12.4	05.6	04,5	07.5	Ü	0	4-	10	0		10.0		12.0	0.50	0.97		91.0	17.7	15 5	13.0	10.9	2709	4		6
10236	15.4	87.8	119,9	11.1	L	11	6-	0		198	10.0	893	09.1	11.90	10149	1000	11 0	15,0	16.1	00.6	22.0	29R9	0	0	0
10237	11.1	5.4	7.2	8,3	0	0	*	0	0	151	10.4	78	8,	0.52	0.54	408	25.0	10.1	12.9	7.2	22.2	29B4	0.	0	0
10243	07.4	14.2	07.0	08.2	0	0	+	0	0	154	09.4	075	05.2	0,49	0.51	367	20,4	10.9	8.80	06.6	14.5	30F8	0	0	0
10245	10.0	057.0	08.0	11.3	0		*	0	0.	101		0.78	07.2	0.40	0.44	400	39.6	12 11	15.2	05-4	22.3	3070		0	
10251	12,0	04.3	119.4	115.4	0	0	×	A.	-0.	195	10 7	0.45	100-2	0.41		5.05	22.7	19.3	09.2	110 4	10.6	SARY	9	0	2
10254	11.8	04.2	08.1	02.5	0	0	+	0	0	118	07.6	069	08.4	0.59		254	22,4	10.0	17.0	05.8	17.2	3004	0	0	0
10255	11.7	06.3	07.5	08.6	0	0	0	+	0	139	09,4	078	08.6	0.56		423	30.0	09.7	17.3	06.6	15.9	2904	0	0	0
10256	10.B	W1 . %	07.3	07/1	0	0		9	W -		10,0		09.4	0.95		963	35/9	18.2		94 =	111 9	mia	-0	0	11
10323	12.4	#3-0	02.9	89.4	n	-0	0.	98	9	150	115.0	394	0.710	0 -0	355	91.7	35 =	10.3	11.1	VA	12.7	2902	0	0	p
10258	12.7	05.9	07.6	13.4	0	0	0	+	0	113	10.1	0.84	10.1	0.76		393	26.7	08.5	13.0	06.1	17.3	2983	0	0	0

		1	11	1				Fruit			/								Flower						
/	1	To de la	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and and	100				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/si	tyle len in mm			ary lengt	th /c	overy wide	th /	Staminode length in mm	/	Sepal lengt	h /	Sepal width	1/4	guls lengt in mm	h. Ligui width in mr
13	14	E E / 4	9/2	1/4	374	2/9	3/2	18/	mean	10	V/	mean /	CV	mean	n/cv	mea	n/cv	mea	n/cv	/mea	n/c1	mean	/ CV	mes	n/cv/
0215	0	0.59	5		?	2	5		2.93	0.11	1,2	59 0	.09	0.98	0.05	8.02	0.70	9,32	0.76	2.67	0.20	7,43	0.59	2.53	0.31
0217	0	0.67	3.	3	5	3	3		2,13	0.10	1.3	1 0	.08	0.95	0,05	7.13	0.28	7,25	0.23	1.98	0.20	7.73	0.37	2.17	0.21
11210	0	0.85	6	6	8	0	7	773	2:53	0.26	1.6	0, 0.	.09	1	0.05	0.51	0.26	4-01	0 53	2.45	0.32	7.73	0.52	- 41	0.25
0221	1	0.66	2	2	5.	2	ħ.		2.22	0.15	12	25 0	.24	1.48	0.09	18 75	0.53	5.84	0-66	2,73	0.23	7.50	0.40	2,75	0.30
18222	1	0.81	5	5	5	5	5		2.12	0.09	1.3	0 0	16	1.00	0.07	7.81	0.38	0.42	0.41	2.42	0.27	8,25	0,50	2,71	0.28
18224	0	0.77	2	2	4	2	7		1.46	0 - 11	1	3 0	11	1.07	0.00	7.49	0.40	0.10	11.60	2,58	0.19	7.51	0.45	2,47	0.26
10225	0	0.69	4	3	0,	5	5	133	2.91	-0102	10	H4 U	76	1.03	0,02	7.20	0.59	0.81	0 '57	2,27	0.16	7.40	0.50	261	0.28
10220		0.59	7	2	X		7				3:5		1	1.1	0.1	8.3	0.2	10.2	0.70	2.84	0.20	2.90	056		0.2
10323	0	0.61	6	3.	3.	1	Ŋ		1/1	0.0	1.1	Ü	1	1.0	0.1	5.7	0-5	W.1	10 7	2,5	01,22	7.8	0.5	2.8	0.2
0228	0	0.59	7	5	3	İ	7		2.0	0.1	1	0	1	1 0	0.1	7.0	0.7	8.4	1) 4		0.2	9.3	0.9	3.0	0.2
0329	0	9.56	3.	3	1	0	5	911	2.15	W. 15	1.3	W . W.	12	1102	0.05	5.111	0,33	8,79	0.05	= 40	0.26	7,49	0.53	2 64	0.29
0230	0	0.74	7	3		T	5.		2.1	0.5	To	0.	1	1.0	6.5	84	0.6	9.4	0.5	218	0.2	8:7	9.6	3.1	0.3
0231	0	0.60	17.	4	3	ű	7		277	0.1	1.1	0	. 1	1.1	0.1	7.3	0.7	57.34	0.84	7.2	0.2	8.2	0.3	2.6	0.4
(0232	5	0.59		8		0	5			0.1	1	0	1	1.0	01	7 ==	0 =	9,2	0.2	21	0.2	7.9	0.5	2.9	0.2
0.0234	3	0.69	18	2	5	0	3	177	2.0	0-1	11.3	0	i	1.11	0.03	0.3	0.3	9.7	1) _ 1)	211	0.2	B-7	0.6	72	912
10236	0	0.71	3	3	. 6	3.	5		31.80	0.7	112	. 0.	. 1	0.7	0,1	0.1	0.4	0.5	1.0	2,1	0.2	63	1.0	2.4	11-44
0.737	0	0.89	0	1	14	7	7		21,34	0.13	10	Z- 0	0.7	1.03	(I - (I.I)	7.78	0.00	0 70	(114)	.0 1411	0 - 2450	7,75	0.65	2.29	0.23
10243	0.	0.35	*>	5	q	1	3		= 00	0.2	1	(1 = 0	.13	1.0.	0.70%	7 - 071	0.50	Vivi	045	2123	0.21	5.83	0.47	1,90	0.22
10295	0.	D.47	9	B	7	9	5		2.04	0.23	1.5	0 18	15	0.48	0.05	6.33	0 52	6.70	0.47	2,73	0.25	6.52	0,82	2/31	0124
10251		0.62							2.30	0.40	1,1	m. 0.	ia-	1.01	0.08	8.21	11.67	1.95	0.65	2.13	0.16	8.30	0.38	2.45	0.42
0254		0.68			123		1000		7 14	0 - 1 ?	1 -	5 0	011	1 01	W.nP	7.59	at 27	7.92	0.00	2-0	0.19	7.28	0.48	2.03	0.10
0255		0.59		3					17,14 24	0 1 7	Le	0 0	11	1.02	0 - (45)		0.39	17 36	0 38		0 - 24	5.97	0,50	1.97	0.17
0.256		0.40						101	2751	0.19	_		0.9	1.04	0.05	7 20	6,26	7-95	0.42	2,38	0.31	7.25	B.32	2,28	0 27
1025V		0.73							3.5	0.85		0.			0.02		0.5	7.72	0.7	2.4	0.3		0.6	3.4	0.3
0258		0.74		17			1		1.394	0.600	10.27	3.00	3123	40.75		a VY	0.41	3500	200	2.3H			0.61	2.31	0.21

1000				1		Flower	10	001	E PASTISTA	1000	Compatibility a	and resistance	7.72.00	-	/
		/	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2/3	1	12/	/	//	Anthora painting Reference	101	/ /	1	101	/	
	1	OR PH	A STATE OF	(2)	at desired	State Check House	Se S	References	an palm Reference	es Reference Refe	rences /	References	Stir under Heter	ences	Notes
/ 9	See .	188	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	al col	1200	Author A St	3 /3 /	/3	antho /	nite life	Monifa rater	100	8/	/	
							13/	/ bus	/ /0	/	Wo.	101	/		HIP ST
10215		0	10A2	0	29A4	707									
10217	-	-	10A4	1000	30C3	606		-		-		-	-	-	-
100000				D		807									
10221			11A6		200	1068						-	THE REAL PROPERTY.		-
10222					30A4	907									
10229	1	100	1A2	100	2805	707	Section 1	DEPOSITS.	THE PERSON NAMED IN		or the same of		Cristal Sales	100000	
10225		3		Ü	30B4	707									
10226	-	100	9A4.	-	3005	6E7		100			SHAME	11 363		1399	
10227			10A3		30B4	507									
10228	-	-	9A4	-	30D5	707	-				The state of the s	-		_	_
10229	3	7	9A4.	0	3005	307									
10230	_	-	BAJ	0	3005	6E7	1000		SHEET SHE	Dale of	STATE OF		12.32		
10231		3	9A3	0	3005	6D7									
10232	3	0	905	7	29114	907	-	_							
10234	0	0	BA3	D	3008	507									
10236	3	0	10A4	0	3009	100			- 125 F		7000	A COLOR		200	
10237	3	Ü	BA2	0	3005	907									
10243	7	0	1084	Ü	3003	206									
10245	7	0	9A2	0	3005	4A5									
10251	U	0	1144	3	29B4	808	0 P	alle	Shipping.	250		4-23			==
10254	3	0	11A4	3	29B4	707	* P								
10255	7	3	7A2	0	30B4	707									
10256	3	3	9A2	3	3004	507									
10257	3	3	1063	0	3004	708	1 15		STATE OF	and the same	The same				
10258	3	3	10A3	0	30B4	504	+ 43								

				37.5			General		FIL	The state of the	13 By 37
AUS.	Separate Sep	Cald de la Cal	a reduced / 45	Accession Accession	n name Synonyms		Country Politi subdivision of origin		origin	Name of collecting source	/ L. Marian
10259	Н	31	10	EEG-65		BRASIL	ESPIRITU SANTO	BAIXO RIO DOCE	3	GOITACAZES	
10268	G	2	11	ELT-12	C2 TR.886	ECUADOR	LOS (108	QUEVEDO	3.	PICHILINGUL	
10262	D	-66	9	EET-41	SANTA NUSA 15	ECUADOR	LUS PIOS	QUEVEDO		PICHICINGUE	
10284	D	56	13	EET-48	SARTA ROSA SA	ECUADUR	LOS HIDS	QUEVEDO	12.3	HDA. STA. HOSA	1
10265	D	67	5	LET-53	SANTA RUSA 42	ECUADOR	LOS R105	SANTA ROSA	3	PICHILINGUE	
10266	G	11	15	EE1-59	SAN JAVIER &	ECUADOR	LOS RIUS	QUEVEDO	3	PICHILINGUE	
10267	0	57	1.0	EEF-62	PURVENTR 7	ECUADOR	403 R.OS	DOE VETO	1	HDA EL PORVENIP	
10268	D	58	13	EET-64	SAN JAVIER T3	ECUADUR	LOS WOS	OUT VE TO	3	PICHILIMBUE	
10269	6	5	13	EET :67	SAN ANTONIO I	ECUADOR	LUS RIOS	DUEVEDO	3	PICHILINGUE	
10270	G	6	14	EE7-75	PRETORIA 1	ELUMBER	LOS PINS	DUEVEIIII	3	PICHILINGUE	
10271	6	3	11	EET-B0	SANTA POSA 14	LYDADUN	nov wier	MINAETON		PICHICIMBOE	- 10
111272	D	68	4	EE7-94	JENGUEU I	ECUADOR	006945	(ENOULL		PICHTEIMODE	
10273	6	1	15	EET-25	TLNGULL 33	TEUADOR	602 8103	QUEVEDO	3	PICHILINGUE	1
10275	D	69	6	EET-156	SAN GENARO 2	LUMBUR	Lun Ring	QUEVERIO	3	FICHILINGUE	1
10276	6	Ð	- 14	EET-142	CURIOUINGUE 2	LCUADOF	Los #105	CORTUCTORIE	6	PICHILINGUE	1
10277	6	3	15	EE1-109	SAN CARLOS I	ELUMUDR	LOS PIUS	QUESCHO	2	PICHILIMOUE	
1.0278	G	12	12	EET-193	WARANJAL 1	£CUADOR	LOS 8105	DOF AFTIO	3	PICHILINGUE	
10279	D	70	9	EET-228	TENGUEL 54	ECUADUR	LOS RIOS	QUEVEDO	3	PICHILINGUE	
10280	D	60	9	EET-250	сосомета	ECUADOR	LOS Pros	OHEVEDO	3 8	PICHILINGUE	
10291	0	4	1.1	CE7-333	STLECTA AVEN. 5	ECUADOR	LOS 9105-	BUEVEDO	-3	PIGHTGINGUE	
10282	D	61	11	EET-338	LAS FUENTES-1	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	
10283	D	72	3	EET-353	TR 1702	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	
10205	D.	71	4	EET-376	SU. HIBE. 1831	ECHADOR	LOS R105	QUEVENO	3	PICHILINGUE	2
10286	D	62	0	EET-377	SEL HIBR. 1837	ECUADOR	LOS RIGS	dnekeno	- 3	PICHILINGUE	26.3
10288	D	64	8	EET-397	SEL. PATOLOGIA	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	

/	The said	General	11 15		/	Pro	duction		/					Send					
14/		/	1.0	/		/	//	/		/		/	/		18	\$/8	4 /		1
Aug. Bedign	,	a description of the second	S. Sandard		/	/2	131	Wetse	ed	Dry	seed	12 5	Numi	our of	10 20 B		Soud	length	1
Pedign	· /.	388 2	The State of the S	see /	Indet		18/	weight in		weight	in g	Secondary Secondary	seeds per		State / St		in r		B. B.
149/	1 78	1 30,1	Ala.	13	18	A 4 4 1	mean	/ cv	/ mean	CV	/ 4	mean	/cv	/ quality	St. Bank	mear	/ cv	\ 480 Mg	/
1.0259	1979	0.6	24.5	1.29	7	46	1.85	08.2	1.24	11.9	0.67	32.7	27.8	0.72	0.058	25.3	05.1	0.55	
10260	1979	05	34.4	1.1	4	50	1.85	13.9	1.1	18.8	0.50	25,4	46.3	0.53	0.054	25,3	05.4	0.55	
10262	1980	07	33.0	1.11	2	146	1.86	15.3	1.11	15.1	0.59	33.5	24.2	0.73	11:079	23.8	05.0	0.58	
10264	1980	07	99.5	1.47	5	46	2,27	00.2	1.47	nA-R	0.65	2914	33.4	0.64	0.045	26.3	05.1	0.55	-
10265	1980	04	21.1	1.41	6	47	2,02	15.0	1.41	14-2	0.70	33.5	43.4	0.71	0.048	25.4	17.5	0.50	
10266	1978	06	26.7	1,41	7	47	2,14	23.4	1.91	21.7	0,66	26.3	47.5	0.56	0.050	25.7	09.1	0,53	- 1
10267	1980	05	22.9	1.33	2	51	2/06	23.0	1.33	22.1	0 : 64	3(5) 6	26.7	0.55	0.059	29.7	10 7	0.47	
10248	1980	.04	15,3	1,65	13	50	2.44	16.1	1.65	14.2	0.57	38.4	21.1	0.77	0.049	250-6	05.9	0.54	
10269	1978	0.6	30.3	.99	5	48	1.47	17.3	.99	19.5	0.68	33.2	29.5	0.69	0.064	23.6	06.4	0.53	
0270	1978	0.6	34,7	.78	7	47	1.18	12.0	. 78	13.4	0.66	37.0	15.9	0.79	0.065	20.3	05.1	0,54	
0271	1978	116	33.2	.97	7	46	1.54	14.7	197	13.0	0.63	30.9	265	0.67	0.055	22.7	88.2	0.52	
0272	1980	03	19.2	1,97	16.	14-7	2.1	18.2	1.97	15.9	0.70	35.6	23.9	1.78	0.050	25.8	07.4	0.50	
0273 NACIONAL	1979	05	21.3	1.29	7	50	1.93	05.5	1.27	00:4	0.67	36.3	30-2	073	0.053	25.1	04.8	0.49	
0275	1979	11	19.8	1,28	3	49	2-07	98.4	1,28	14.0	11.62	39.5	73.0	0.91	0.044	24.0	03.7	0.60	
0276 MACIONAL X V.A	1979	07	23.4	1,27	4	50	1,72	03.9	1.27	12-0	H = 74	33.0	33.3	0.67	11.003	24,0	W6 7	0,55	
0277	1978	0.6	24.1	1.31	9.	有質	1.793	11:4	1.31	11.2	0.46	-31.7	22.4	0.74	0,071	24.1	07.5	0.57	
1278	1978	0.6	27.0	1.08	7	45	1.89	07.0	1.08	0.7 - 35	0.64	39 3	.9L.B	0.76	0.070	23.9	04.8	0.50	
10279	1979	11	16.7	1.63	ц	49	2,49	11.5	1.63	$0 \circ (1)$	0.55	36,0	26:0	075	0.045	25.5	04.3	0.52	
0200	1980	11	24.3	1-11	2	49	1.79	18.9	1,11	20.9	0.62	37.0	25.0	0.76	0.071	23.3	1.80	0,54	
0281	1978	0.6	24.4	1.17	5	44	1.87	08.5	1.17	10-1	0.63	34.9	15.6	0.79	D:074	23.7	06.0	0.50	
0282	1978	0.7	32,4	74	8	51	1.45	06.5	.94	10.3	0.65	32.8	32.7	0.64	0.078	20.6	05.1	0.59	
10283	1980	11	23.3	1.25	1	49	1.91	09.4	1.25	11.8	0.65	34:5	23.8	0.70	0:059	25.0	04.8	0.55	
18285 EET-156 X SCA-	5 1979	11	21.9	1.12	No.	57	1.71	00.2	1.12	09.3	0.65	91,B	27.0	0.73	0.057	22.3	84 B	0.52	-
10286 EET-156 X SCA-	5 1980	116	26.1	1.06	2	56	1.58	09:7	1.05	11.3	0.67	40.8	30.3	0.72	0.076	22.5	00.0	0.52	
10288 SCA	1780	04	23.6	1.1	5	51	1.81	08.7	J., I	10-5	0.61	38.5	28.5	0 - 75	0.061	23.3	05.2	0.56	

			/				S	eed			-	/					-	Fr	uit						
/	mean mean	\$ / 5	eed width	/se	eed th		15/	100	,	don colo	_	ruit len	gth /	Fruit wid	th Ritt wild	ander men	3 18 / F1	ruit weigh	thic	Fruit wal	/ thi	Fruit was	11	Safe Marie	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
135	mean	/cv	mea	n / C	1/	20/	() () () () () () () () () ()			mean	7	1 /me	an / C	V/2	No April	me	an / CV	mea	/ CV	mean	/ cv	13	1	8/2	10 / 10 City
10323	13.8	03.8	08.5	05.4	0	0	0.	4	0	150	11.3	098	05.7			567	27.6	11.2	15.4	08,2	15.4	2904	0	0	0
10260	14.0	02,4	10.1	08.3	0	0	+	Ð	0.	187	13.2	080	10.3	0.43		491	33.1	12.5	14.3	06.9	10.3	30B4	0	0	0
10262	15.9	06.7	09.0	11.3	U	0	4	0	. 15	146	10.4	085	0.6.0	0.57	0 54	425	20.5	10.0	12.0	0.5,5	13.6	2983	- 0	0	0
10259	14.4	06.9	30.76	11.5	-0	0	*	4	11	189	11.	091	0.8 .4	0.48	0.159	755	24.9	1017	10.9	08.9	111.6	SHEA	0	(I	0
10265	12.7	05,5	09,0	14.4	0	1)	+	+	()	195	13.7	095	10.0	0.49	0.49	692	30,4	15.1	15,2	09.7	17.5	30E8	0	0	0
10266	13.5	07.9	11.0	08.2	0	0	+	0	0	171	06.1	085	09.5	0.50		522	29.2	15.3	05.2	09.1	03.3	30E7	0	0	0
10267	12.2	07.4	09.0	14.0	0	- 0		U		173	13 2	095	10.0	14.54	0.54	600	,55 . 10	19/2	54.0	20,5	16.5	271/6	0	n.	U
10248	14.3	07.0	10.3	10.7	D	0	1.	*	0	213	105	11.94	07+3	11,385	0.96	785	74.6	174-41	10.7	W9 II	17.8	59E8	0.	0 -	0
10369	12.4	05.6	09.1	12.0	0	0	0	+	0	167	13,4	079	12.9	0,47		516	38.1	13.3	21.5	08.7	22.7	2905	.0	0	0
10270	10.9	10.4	07.7	15.6	0	0	0	+	0	154	08.4	091	0ò.3	0.59		568	20.5	17.2	04.9	08.6	06.4	30E7	9	5	5
10271	11-2	46,7	08.5	04.3	0	U	0		D	160	11.3	071	11 8	0.5%		365	24.3	14.3	13.3	8.8	14 B	30E7	1	0	0
10272	12.9	06.2	00/5	19.7	D	11-	*	*	0	208	711.19	0.97	10.3	0.97	0.43	716	31.7	15,0	10-7	09.0	18.4	30E7	1	0.	0
10273	12.3	03.8	09.0	07.8	0	0	.0	+	0	189	12.3	092	07.1	0.49		690	29.6	13.9	13.2	08.4	18.7	2906	0	0	0
10275	14.4	05.5	09.3	08.5	0	0	+	+	0	189	13.9	107	09.3	0.57	0.50	885	29.0	15.3	12.4	07.3	21.9	3005	9	8	7
10276	13,2	07.8	08.5	11.3	0	D	0		0	1/1	12.3	087	13.0	0.51		532	29.0	13/8	11.0	07.5	16.0	2904	0	0	0
10277	13.7	05.8	10 1	05-9	0	0	-	D	0	163	10.4	0.84	19,5	0.51		449	27-0	18 4	05.9	12.1	04.9	24E8	0	0	0
10278	12.0	06.0	09.0	08.9	0	0	0	+	0	179	11.6	080	10.8	0.45		493	28.2	14.6	14,4	09.9	14.1	2905	0	0	0
10279	13.2	04.5	10.4	07.7	0	0	+	+	0	231	13.0	098	07.1	0.42		814	24.3	15.9	11.3	08.9	12.4	29E8	1	0	0
10280	12.7	07.0	08.3	10.0	0	-0	+	6	0	168	10.5	nas	10 6	0.51	0,49	520	281.6	17.0	11.0	04-5	20.0	2000	0	-	0
10281	12.9	07.2	08.4	11.6	-0	0		0	0	146	11.2	0.78	10.4	0.07	0,55	971	28,5	11.4	13.7	04.9	18/7	2983	0	0	0
10282	12.2	05.8	07.7	01.8	0	0	÷	0	0	182	10.1	074	06,4	0.41		423	35.9	11.8	09.0	08.3	04.2	2808	9	8	5
10283	13,7	04,4	08.7	06.9	0	0	0	+	0	172	11.0	088	09.6	0.51	0.53	585	29.6	12.3	14.6	07.5	20.0	2904	2	0	0
10285	11.7	04.3	08.7	11.5	0	0	0	7	0	2211	TH.O	. 1197	07-7	0.44	0.52	739	2216	14.6	15,7	86 5	15.4	28F7	0	10	0
10288	11.8	07.3	07,5	12 0	0	0	F.	0	0	1.74	15.5	0.025	08.0	0.47	11,54	520	31 3	12.1	14.4	07 0	18.6	30E6	D	0	D
10288	13.1	05.3	08.5	10.6	0	0	0	+	0	189	15.5	085	11.9	0.45	0.50	635	33.4	15.5	13.5	08.5	16.5	2916	5	0	0

/		General			/	P	roduction		/	39				Seed				
13/		1	1.0	/		/	11	/		/	-	/	/	-	18	1/3	1	-
Pedigree Light Bedigree		d sand story	of Sections		1	1/2	1 3	Wet so	ied	Dry	seed	/ st . 18	Numi	per of	1000		Seed	length /
Pedigree	/	38/3	of the state	188 / 3	IN THE PERSON NAMED IN	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	32	weight in		weight	in g	St. St. St. St.	seeds per		Berge / St	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	in n	/ / / /
18/	1 700	1 40	1 400	1 3	10	1 44	mean	/ cv	mean	/cv	/ 1	mean	/ cv	1000	of age	mean	/ CV	144/
10259	1979	0.6	24.5	1.24	7	46	1.85	08.2	1.24	11.9	0.67	32.9	27.8	0.72	0.058	25.3	05.1	0.55
10260	1979	05	34,4	1.1	4	50	1.85	13.9	1.1	18.8	0.50	26,4	46.3	0.53	0 - 054	25.3	05.4	0.55
0262	1780	07	33.0	1-11	2	46	1:36	15-3	1-11	15.1	0.59	33.5	5.A. S	0.73	0 879	23 9	85.4	0.55
1059#	1980	07	99.5	1.47	5	46	2.27	08.2	1.47	Ha B	0.65	29.5	33.4	0.69	D 1145	263	116.0	0.55
10265	1980	04	21.1	1.91	6	47	2.02	15.8	1.41	14.2	0.70	33.5	43.4	0.71	0.048	25.4	07.5	0.50
10265	1978	0.6	26.9	1,41	7	47	2,14	23.4	1,41	21.7	0.66	26.3	47.5	0.56	0,050	25.7	09.1	0.53
0267	1980	0.55	22.9	1.33	3	251	2.06	23-0	1-32	2211	0-04	32.7	26.7	0.65	0 059	24 7	(18.7	0.49
0268	1980	0,1	15.8	1.45	I.	50	2.44	16.1	1.65	15.2	0.67	30.4	21.1	0.77	0.009	25.4	05.0	0,58
0269	1978	0.6	30.3	.99	5	48	1.47	17.3	. 99	19.5	0.68	33.2	29.5	0.59	0.064	23.6	06.4	0.53
0270	1978	0.6	34.7	, 78	7	47	1.18	12.0	. 78	13,4	0.00	37.0	15.9	0.79	0.045	20.3	05.1	0.54
0271	1978	06	33.2	197	7	96	1.54	14.7	127	13,0	0.63	30.7	26 5	0 47	0_055	22.7	86 2	0.52
0272	1980	0.3	19.2	1.47	14	47	2.1	10.2	1.47	15,4	0.70	35.6	23.9	0.75.	0.050	25.8	07.9	0.50
0273 NACIUNAL	1979	05	21.3	1.29	7	50	1.93	05.5	1 27	06.4	0.67	34.3	38,2	0.73	0.053	25.1	04.8	0.49
0275	1979	11	19.8	1.28	3	49	2:07	08.4	1,20	14.0	11:32	39.5	23:0	0.81	0.044	24.0	03.7	0,60
0276 NACIONAL X V.A.	1979	07	23.4	1,27	14	70	1.72	03.7	1.17	12.0	-0 7)4	33.6	33,1	0-47	0.003	29.0	69.2	0.55
0277	1978	0.6	29.1	1.31	7	43	1.93	11.9	1 31	11.2	W-50	31.7	22.0	0.79	0.073	24.1	07.5	0,57
0278	1978	0.6	27.0	1.08	7	45	1.69	07.0	1.08	07.6	0.64	34.5	24,8	0.76	0 070	23.9	04.8	0.50
0279	1979	11	16.7	1.63	14	40	2.49	11.5	1:63	00.8	0.55	36.6	26:0	0.75	0:045	25.5	04.3	0.52
0280	1988	11	24.3	1.11	2.	40	1.79	10.9	1,11	20.9	0.62	37.0	25,0	0.76	0.071	23.3	08.1	0.54
0281	1978	06	24.4	1.17	5	44-	1,87	00.5	1-17	10.1	0.83	34.9	15.0	0.79	0-074	23.7	06.0	0.54
0282	1978	07	32.4	. 94	8	51	1.45	06.3	. 94	10.3	0.65	32.8	32.7	0.64	0.078	30,8	05.1	0.59
10283	1980	11	23.3	1.25	1	49	1.91	09.4	1.25	11.8	0.65	34.5	23.8	0.70	0.059	25.0	04.8	0.55
0285 EET-156 X SCA-6	1979	11	21.4	1.12	4	57	1.71	08.2	1/12	68,3	0 45	41.8	27.0	U 73	0.057	22.3	04.0	0.52
0286 EET-156 X SCA-6	1980	06-	26.1	1.06	2	56	1.58	09.7	1.05	11.3	0.67	40.5	30.3	0.72	0.078	22.5	08.0	0.52
10298 SCA	1980	0.4	23.6	1.1	5	51	1.81	08.9	1 / 1	10.3	0.61	30.5	28.5	0.75	0.061	23.3	05.2	0.56

150			1				5	Seed			5	1		33				F	ruit	STATE OF	450	W II		70	Harling .
/	Section of the second	1/8	eed width	/s	eed th		ess/	100	10000	don colo	-	ruit leng	gth /	Fruit wid	th district sent	The state of the s	2 de / F	ruit weigh	1111	Fruit wall ckness at in mm	/ thi	Fruit will ckness at in mm	11	artist !	58 / 10 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10 1
13	mean	/cv	mea	sn/c	V/	100	6	(E)	1 / 4 de	mear	1/01	me	ean / C	V/ &	do dig	me me	an / CV	mea	n/cv	mean	/ 01	1	1	8/4	E 18 E 1
10259	13.8	03.8	08.5	05.4	0	0	D	1	0	150	11.3	0.99	05.7			567	27.6	11.2	15.4	08,2	15.4	2904	0	0	0
10040	14.0	02:4	10.1	08.3	0	0	+	0	Ù.	187	13.2	080	10.	0.43		491	33.1	12.5	14.3	06.9	10.3	30B4	0	0	0
10262	13.4	05.7	08.0	11.3	0	0	5	0	-0.	145	10.0	083	06.1	0.57	0.54	1125	20.5	1.0 . 0.	12.0	00.5	13.6	2990	0	0	0
10264	19.4	06.9	10.4	11,5	. ((-0		4	n	109	11.7	0.61	00.4	0.40	11.54	655	24-9	19.7	10.9	00.9	14.6	30E&	-0	11	11
10245	12.7	05.5	09.0	14.4	0	0	+	4	11	195	13.7	0.95	10.0	0,49	0.49	692	50.4	15.1	15.2	09.7	17.5	30E8	0	0	0
10266	13.5	07.9	11.0	08.2	0	0	+	0	.0	171	06.1	085	2.90	0.50		522	24.2	15.3	05.2	09.1	03.3	30E7	0	0	Ü
10267	12.2	07.4	0.5.0	734.79	0	- 0		0	0	175	13:2	895	10.0	0.54	0.50	â04s	35.0	19.2	14.0	08,5	14.5	2700	- 0	0	0
10269	14.3	.07.0	10/3	10.7	0	- 6	·	+	0	213	10-4	0.94	07.3	0.44	0.46	786	294.8	19. 9	10,7	0.60	17 H	29EB	0	-10	0
10249	12.4	05.6	09.1	12.0	0	0	()	+	0	167	13.4	0.79	12.9	0.47		516	38.1	13.3	21,5	08.7	22.7	2915	0	0	0
10270	10.9	10,4	07.7	15.6	0	0	0	+	0	154	08.4	091	06.3	0.59		588	20,5	17,2	04.9	08.6	06,4	30E7	9	5	5
10271	11.9	115.7	03.0	08.3	0	0	0	100	0	1//3	11.3	021	11.0	0.54		nan	129.3.	14.3	13.3	08.0	14.6	30E7	1	0	0
18272	12.9	06.2	09/5	14.7	. 10	4	+		0	208	111-14	097	10.3	0.47	0-93	71%	31.7	15-0	16-7	89-8	18.4	3047	1	0	a -
10273	12.3	03,8	09.0	07.8	0	0	9	4	0	189	12.3	092	07.1	0,49		690	29.6	13.9	13.2	08,4	18.7	2906	0	0	0
10275	14.4	05.5	09.3	08.6	0	D	+	+	0	189	13.9	107	09.3	0.57	0.50	685	29,0	15.3	12-4	07,3	21.9	30105	9	8	7
10276	13.2	09.8	08.5	11.0	0	0	0.	8	0	171	12.3	087	13.0	0.31	36	53%	29.8	(2.7	11.6	07.5	14.0	2964	0	0	0
10277	13.7	05,8	10.1	115.7	0	0	+	0	8	10.5	10:4-	000	04.5	0.51		449	27.8	9.81	05.9	12.1	09.9	29E8	0	.0	0
10278	12.0	06.0	09.0	08.9	0	0	0	4	0	179	11.6	080	10.0	0.45		493	28.2	14.6	14,4	09.9	14.1	29115	0	0	0
10279	13.2	04.5	10.4	07.7	0	0.	+	+	0	231	13.0	078	07.1	0.42		814	24.3	15.9	11.3	08.9	12.4	29E8	1	0	0
1,0280	12.7	07.0	00.3	10.8	0	-0	10	1	0	168	10.5	005	19-6	0.51	0.49	520	28 8	11.8	11/0	06.5	20.0	5808	0	-0	0
10281	12/9	07.2	08.9	11.6	0	0		-(1	0	160	11.2	078	10.4	0.47	0.45	473	28/5	11.4	13.9	04.9	10.7	J983	0	0	0
10282	12.2	05.8	07.7	01.8	0	0	+	U	0	182	10.1	0.74	06.9	0.41		423	35.9	11.8	09.0	08.3	04.2	2808	9	8	5
10283	13.7	04,4	08.7	06.9	0	0	0.	+	0	172	11.0	088	09.6	0,51	0.53	585	29.6	12.3	14.6	07.5	20.0	2904	2	0	0
10285	11.7	114.3	00.7	11.5	. 17	0	0	1	0	220	10.0	097	07.2	0.44	0.52	734	22.6	14.6	15.7	116 5	15.4	2017	-0	0	0
10286	11.8	09.3	07.5	12.0	0	Ü.	1	0		174	15.5	088	08.0	0,49	0.54	520	31 3	12.1	19.0	07.0	18.6	30E4	D	0.	a
10288	13.1	05.3	08.5	10.6	.0	0	0	9	0	189	15.5	085	11.9	0.45	0.50	635	33.4	15.5	13.5	08.5	16.5	29D6	5	0	0

				/			Fri	uit	1	/						1	Flower						
/	- Constant	S S S S S S S S S S S S S S S S S S S	The state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and and			\$ 1 m	_	le length	/0	vary lengt in mm		vary widt	m/:	Staminode length in mm	/s	epal length	/	Sepal width	Li	gule length in mm	Ligute width in mm
138	13	E 18/4	1/2	8/2	3/4	2/0	1 NES	mean	/ CV	mea	n/cv	mean	/cv	mea	n/cv	mean	/ CV	mean	/cv	mean	/ CV	mean	/ CV /
0259	0	0.74	4	3	2	1	7	2	0.26	1.35	0 11	0 96	11.06	8.64	0.49	8.52	0.52	2,52	0.23	6.79	0.51	2,28	0,22
0260	Ū	0.58	7	6	7	9	3-	2.66	0,45	1,57	0.21	1.02	0.04	7.68	0.53	10.15	0.53	21.04	0.13	9,21	0.60	2.22	0.25
0262	II -	0.86	2	2	3	3	7	2,27	0.12	1.41	0.00	0.54	11-119	6.15	0.28	7.16	0.72	2,12	8-24	1/163	0.31	1.91	0 19
0269	0	0.67	11	4	5	5	5	2.76	0.50	1 20	0.11	1.05	11.03	0.799	0.21	97.32	0.45	2-01	0.00	7.60	0.30	2.73	0.27
0265	0	0.67	6	5	4	1	7	2.48	0.19	1.13	0 , 12	0.96	0.06	6,66	0.50	8.65	0.47	1.93	0,12	7.59	0.32	2.32	0.20
0266	0	0,68	6	5	5	1	3	2,49	0 13	1,41	0.11	0.97	0.07	7.41	0.35	8.89	0.37	2 33	0.23	7.62	0.47	2.97	0.20
0267	0	0.49	5	14	15	2	1	- 44	0.14	1,31	0.13	0,29	0.04	1.12	0.42	9.26	0.50	2,05	0.13	8.04	9.50.	9.55	4732
0258	36	0.67	0	3	5	3	1	2.70	0 17	1 27	11-15	1 01	0.05	1241	0.113	9-43	041-0	2.25	0.26	9 01	0.50	2.00	0.30
0269	0	0.63	5	5	5	3	5	7,66	0.22	1,32	U.09	1.05	0.07	7.21	0.48	9.41	0.14	2.33	0,18	7.99	0.89	2.82	0.39
0270	0	0.53	2	3	Ī	0	3	2.71	0.20	1.56	0 - 0.7	1-17	0.10	4.72	0.34	7.55	0.44	2 46	0.23	7.83	0.54	2.42	0.19
0271	0	0.54	4	5	5	0	3	2.91	0.19	1.216	0.07	1 00	0.03	Podes	1436	85.85	0.34	2 02	0,22	0.60	0.35	3.65	0.39
0272	0	0.62	5	3	5	1.	7	2.98	0-15	1 12	0.15	0.97	0.00	5.27	0.91	9-10	0.49	2.07	0.18		0.42	2.43	0.23
0273	0	0.66	6	5	5	1	5	2.62	0.24	1.32	0.03	0.78	0.09	50.94	0.28	9.08	1)., 96	2,28	0.29	7.85	0.52	2.53	0.21
0275	2	0.32	4	7	Š	1	7	2.94	0.17	1.09	D. De-	0,97	0.05	7,39	0.36	8.48	076	2,30	0.28	6.75	0.64	2.50	0.33
0275	0	0.65	5	5	4	3	5	3.02	0.23	1 38	0 (0	1_00	0.03	0.97	11455	8.05	11/59	2/28	0.19	7 89	0,344	3.03	0.22
0277	0	0.65	5	3	3	2	3	2,48	9.49	1.36	0.00	1.00	0.00	7,90	0.37	9.64	0.39	2.44	11.28	8.47	0.62	3-71	0.46
0278	Ű	0.53	14	5	5	1	3	2.74	0.13	1.10	0-07	1 00	0.02	8, 4	0.55	10.08	0.29	2 19	0.13	9,52	0.54	2,50	0.22
0279	à	0.58	7	5	ϵ_j	5	7	2.80	0 16	1.12	0.09	0.96	0.000	7:30	$\theta \circ u_{11}$	8.86	0.83	2.12	0.31	7) 07	0:25	2.21	0.21
0280	0	0.57	5	2	5	0	5	2:05	0.10	1.96	0.11	1.00	0.03	7,55	0.41	8 91	0.149	2.40	0.25	7.50	0.54	2.17	0.00
0281	0	0 67	n	5	5	L	3	2.13	0.21	1 40	0.25	1 01	0.02	9,20	0.50	9,47	9,56	2/40	0.34	36	9.48	2.01	4.10
0282	3	0.76	14	3	6	7	3	2.69	0.20	1 37	0.09	0,79	0.00	7,29	0,64	9 54	0.41	2.10	0.17	21,12	0,43	2,85	0.30
0283	Ď.	0.88	14	3	14	U	7	2.33	0.29	1.20	0.09	1 0.0	0.03	7,90	0.29	9,93	0.10	2.30	0 (10	6.83	0.28	2.08	0.10
0285	0	0.59	7	7	13	1	5	2.75	0.28	1.52	0.05	1.04	0.05	7711	0.55	1.93	0.61	2.73	0.29	6,73	0.30	2.71	0.26
10284	0	0 74	5	2	3	3	5	2.53	0.22	1.17	0.08	0.97	H-475	7.90	0.23	7.75	0.51	2010	0:11	7.23	0.44	2/45	0.23
0290	0	0.95	5	3.	6	.02	52	5,13	0.13	1.15	0.10	0.90	1(_ () 1)	17.05	0.720	32-22	0.39	2.43	0 39	4-71	0,44	2,41	0.29

		6	(65 PK	/	E	lower		Losf	/		52		THE REAL PROPERTY.	Com	patibility a	nd resistance	LUIZ.	/
	,	1	\$ /3	0/2	2//	\$/	1	/	1	accontracts	/ Jugo	/	10	1	1	1	100	/ /
-	1	DE CHI			1 /25/	" A	200	3 / R	eference	2 / 50	pall R	eference	s dernich Re	ference	/ 10/	References	/ sund	References Notes
/15	600	100		100	A STATE OF THE STA	a cheer he ti	1	35/	/	redhill.		/	nidella pernerda	/	onlie roter	/	Security of the Paris	
18259	7	3	10A4	0	3004	506	10	1	1 6	/		10	1	1 4	1	10	/	1
18268	3		10A3	Ó	30B4	707												
10262	0		10A3		301-5	- 707		Control to	Sant	200	-	8158	C-CORD	0000	151/2500		el cesto	
			10A3			607	n	41.43				5	43		43.	7-7	1,43	GOOD COMPINING AS
	3		BA2	-	30A4	806	-				-	10050		-				
10266					30A4	708	0	P	T=R	1								
18267	3	3	984	0	30B4	707	100	22	-	100	HIS.	15	9.7	5.	43	7.5	43	GOOD COMBINING AD
10248		1	10A3	0	3843	607.			-	4.5			43	9	93	15	43	
10269	3	3	10A5	0	30B3	606	act.					-		ACCOUNT.			1000	A CONTRACTOR OF THE PARTY OF
10270	7	3	10B5	7	30B4	908	()	Ř:										
10271	0	3	1000	-0	-1000	707	16	r	600	SHE	100	800	William Co.	010	15 115			
10272	3	3	VA3	4	3043	770												
10273	7	7	10A4	0	3084	8E6	_		-			S	43	S	43	T	43	GOOD COMBINING AP
10275	0	3	10A4	3	30A4	907												
10276	3	7	10A3	0	3003	707	100	7-5045	TO SE	100		F	45-	13	143	-		0001005
10277	0	3	30A2	u	2965	907	18	P										
10278	3	0	9A4	0	29B4	608												
10279	3	3	10A3	0	3A5	707						5	9.3	S	43			
LOUBE	7	7	10A3	0	3004	503		THE PARTY	No.	1137	Part of	1857	(-1) (-i)		0000	-		
10281	3	e	1103	0	3003	8118	-6	41,42,45				TH	1272.91					
10282	3	0	10A4	3	30A4	606												
10203	3	3	10A4	0	30B3	5E7												
10285	3	3	1989	0.	2965	767		SER		F3 (#	6	1111	THE SE	DIS.	1-5			
10286	0	3	BA3	0	3004	600						TH						
10288	0	3	8A3	0	29A4	807												HYBRID WITH SCA?

			50		MIR SERVICE OF	022	General	MI SEE SIN	157	neiting at the	STATE OF THE PARTY OF
138	The state of the s	and Act of	100	Accession nar	ne Synonyms	/ Co	untry Politi subdivision of origin		in /	Name of collecting source	Total State of the
10289	G	13	14	EET-399	SEL. PATOLOGIA	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	1
10290	G	4	15	EET-400	SEL, PATOLOGIA	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	1
10291	M	17	5	6-0		INDONESTA					ETSIL IT
10293	Đ.	45	12	GA-11		HATTI		BRAND AWSE			No. of the
10296	B	67	10	GS-29		GRENADA			2	HACIENDA BOULDQUE	
10297	В	59	13	GS-36		GRENADA			2	HACIENDA BOULOQUE	_
10309	B	116	11	IGS-L	EET-274	TEINIDAD		PIVER RETAIL -	4	IMPERIAL COLLEGE	No.
10311	B	52	13	10S-6	EEF 275	TPINIDAD		HIVER ESTATE	3	IMPERIAL COLLEGE	
10313	В	42	7	ICS-16		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10315	В	74	8	ICS-39	EET-325	TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10316	B	39	4	ICS-40	EET-30a	TRINIDAD		SIVER ESTATE	3.	THPERTAL COLLEGE	1449
10317	Н	25	10	ICS-43		TRIMIDAD		PIVEN LSTATE	-5	THPERTAL COLLEGE	
10318	В	51	10	ICS-44		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10321	В	38	10	ICS-40		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10323	H	2	7	10S-53	C. C. C. C. C.	TRIMIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	D-18-18-17
10325	H	34	3	105-60		TRINIDAD		HIVER EVIATE	3	IMPERIAL COLLEGE	
10326	В	73	12	ICS-89	EET-328	TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10329	В	78	3	ICS-117		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	2
10333	B	70	13	FGS-137	Section 1	TRINIDAD	West of the second	RIVER ESTATE	3	THPERTAL COLLEGE	2
10335	В	32	4	108-95	FEI-III	TRINIDAD		PIVER ESTATE	3	THPERIAL COLLEGE	315.51
10337	B	68	13	ICS-100	EET-312	TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10338	В	77	6	ICS-133		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10339	B	7	13	IHC-60		PERU	The state of the s	1901108			THE PORT
10341	6	25	15	INC-67	EET-116	191,000		Tournes		the first of	
10343	G	16	13	JACA		BRASIL	BAHIA	BAHIA	3	MUTACION	

/		General			/	Pr	aduction	1,03	/					Seed				
1#		/	1	./		/	11	/		/	/	1	//		/3	1 1 1	4 /	
TUR BURNER BURNER		and Marinish	S de de de de	/	/	/	1 3	Wets	eed	100	seed	133	Num	ber of	133	1 2 2	Sund	length 3
Pedigree Pedigree	/	54/3	5%	THE /	(Fige		15/	weight in		weight	ing /	Ser	seeds pe			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		mm /
Till.	1 70	1 38	1 18	13	/9	6/4/	mean	/ CV	mea	n/cv		mea	/ CV	1950	2 / 45 C	mea	/ CV	1 de 1/
SILECIA-1	1979		26.9	1.01	3	4.7	1.53	19.6	1.01	21.9	0.66	36.7	18.3	0.78	0.078	25.1	07.5	0.47
0290 SILECIA-1	1978	0.6	27.2	1,14	5	48	1.65	17.4	1.14	08.8	0.89	32.2	31.1	0.67	0.079	25.5	06.3	0,50
1291	-1050	2 1	23.0			48	1.92	31:3	1.23	26.8	Broa	34,7	22.3		0.051	25.6	12.2	0.59
1993	(979	-07-	2411	1.19	5	ay-	1.82	15.0	1.19	15.4	0.65	36.0	00.07	0 88	0.082	23.0	05-0	0.58
1296	1979	0.7	19,3	1.82	5	38	2.8	05.2	1.8,	07,1	0,85	28.4	22.2	0,75	0.044	26.5	05,4	0.56
1297	1979	0.1	16.8	1.67	5	47	2,62	06.5	1.47	08.1	40.0	35.6	21.4	0,76	0.034	26,4	04.4	0.55
389	1//2	12	1000	2.7	4	45	2.61	98 ÷	TY	02.1	0065	-34,0	1343	0.80	0.056	27.9	05.9	0.51
31-1	1920	00	17.9	1-11		51		90.5	1.67	20.7	0.62	34.7	20.11	0.65	0.090	27.0	04.11	0.57
313	1979	0.7	13.8	1.79	t.j	51	2 94	12.5	1.74	13.8	0.59	34.2	26,6	0.67	0.040	29,5	08.9	0.56
3315	1979	0.1	22.7	1.47	7	42	2.3	05.5	1.47	05.0	0.64	30.0	28.7	0:71	0.050	26.1	06.9	0.50
316	LARG	04	58.8	1.00	- 2	40	T. 02	-197.00	1,28	10/8	0,65	50.0	23.7	0.71	0.040	29.0	06.2	1.55
1317	1979	0.5	28.3	1.07	q	39	1.78	14 6	4,07	1811	0 62	33.3	15.	0 (82)	11-11-55	22 1	117.9	0.5%
1318	1979	0.4	18.4	1.56	5	43.	2,97	11.6	1,56	09,3	0.63	34,9	16.6	0.81	0.047	27,6	07.2	0.50
1321	1978	12	28.2	,99	7	49	1.59	07.6	.99	08.1	0.62	36.0	20.5	0.73	0.073	23.9	05.4	0.48
323	1978	0.7	28.7	1.25	13	41	2.01	17.3	1.05	13,5	0.62	29.7	23.9	0.72	0.0%	25 @	68,3	U.94
325	1989	0.9	20.0	(.52	15	14.01	2151	19.1	1,52	13.6	0 61	31.4	21 3	0.79	0.052	26/4	(7.)	0.65
1326	1979	0.1	31,6	1,53	6	34	2,42	09.4	1,53	10.5	0.63	20.7	32.4	0.31	0.028	24.8	05.6	0.57
132V ICS-6 X SCA-6	1979	0.7	17.8	1.67	4	42	2,83	09.4	1.67	11.5	0.84	33.5	25.0	0.00	0.053	25.4	03.5	0.58
333 1CS-8 x SCA-12	1977	05	157	2.65	2	47	2.56	6.90	1 65	08.5	0.04	20.5	15:0	0.60	0.039	14.8	04.4	0.55
1535	1979	12	43.1		6	9.5	1-50	13.7		15.3	0.51	33.3	21/6	0.77	0-079	23.5	116.5	0.49
337	1979	05	22.8	1.47	5	46	2,27	17.0	1.47	16.3	0.00	29.9	Žay1	0.45	0.056	25,2	11.6	0.52
1339	1979	0.1	22.2	1.41	3	45	2.28	8.30	1.41	09.5	0.62	32.0	25.9	0.71	0.055	23.6	05.1	0.59
339	1970	02	23.B	195.	3	57	2.41	14.4	195	13:4	0/67	44.3	29.8	0.78	0.049	2276	011.5	0/53
1391	1979	07	25.7	.92	5	59	1.34	07.B	112	08:7	0.67	42.3	27.9	11.72	0.058	22 1	1.60	0.52
1343	1979	11	44.2	.81	2	37	1.23	09.7	.81	07.4	0.65	27.8	20.9	0.75	0.074	21.5	03.2	0.50

1			/			Total	Se	bes		E GU		/						Fr	riu						FILE
/	mean	Sec	ed width		d thi	oknes m	1/5	1	-	ton colo	1 81	uit leng	th /	Fruit wid	th / settle	Bar men	2 18/51	uit weigh in g	thic	Fruit wal		Fruit we kness of in mm	11	The state of	1 5 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
138	mesn	/cv	mean	/ cv	/2	2/6			19 die	mean	/ CV	me	an/c	V / 43	9 / 48 B	men	n/cv	mean	/cv	mean	/ CV	1	1/2	8/2	E / 28 (2)
(1)289	11.9	06.3	08.8	10.9	÷	10.		ŧ	11	1 100 11	13.1	Mira	1.0.	1. 0.43		472	52.1	09 3	19 5	04 8	15-7	56B2	0	X)-	(I
0220	12.7	08.7	07.9	10.1	8.	0	j.		-0-	161	14	0.77	1.0	0.48	U-Case	##65	27.7	09.7	117.3	05	45.2	_9E7	-0	Ü.	il.
0291	12,7	9214	119-0	07-6	0	- 11	0	1	0	lan	24.4	104	241	N W VC	-0.01	BUL	See H.	I But	15-6	05-6	200	1924	W.	13	To .
0262	13.3	09.0	08/9	07-1	0	U	1	0	0	161	4/ 5	07%	MB-	11-47	Total S	43H	21-B	11.79	3.4.74	90 0	15, 16	2903	9		
0296	14.8	06.1	10,8	05.9	0	0	0	*	0	198	11.7	093	0.2.3	0.47		852	30.4	14.3	10.7	09.3	13-7	2904	9	9	21
0245	14.4	04.2	11:0	05.7	0	Ü	b	0.	-0-	237	07.4	1.05	04.	y= 10.,44		1064	15.6	17.0	08.7	11.3	15-1	2906	9	9	B
0309	19.1	05:2	10.2	10.0	-6.	IL			ñ.	175				0.48		640	31,2			Bell		2708			5
0311	15.8	03.8	10.0	0=0	10	-0		29	10	379	11 3		0.5	11 31 >	0.750	DEA	7.7.0	14		0.9 3	14-1	TABR	-91		
0313	16.8	06.9	09.7	08.8	II.	O	1	0.	0	179	05.3	10%	0.7	0.759	0.51	863	23.5	1.7 -5.	11 (11.7	13.0	THE?	-17	À.	43
0345	13,1	05.3	09.4	06.4	0	.0:	1):	À	-0-	1.70	19 9	11,5,14	0.4	0 - 15		595	31.3	13.5	11.0	07.7	10.3	.6102	-0	U	.0.
(13) 6	16-11	7.5	10,0	0.5	10	-11	-11		0	513	1 0			0.42	10.504		21.4		13:4		1=4	397		0.	1000
0317	12.3	07.3	08.4	11.7	9)	0	F.			177	II A	47.7	30.0	0.49		5.05	-1.4	39.2	12.0		19.2		4	4	
0318	13.8	04.3	09.6	10.4	Ð	it	1)	+	0	187	0.63 0	0.63	0.9	0.40		114	29.0	13.0	15-1	48-9	14 0	31108	9	7.	
0321	11.4	03.5	07.3	06.8	0	.0.	0	÷	0	1.20	07.9	1193	06.5	0.79		493	20 5	1000	0.50-5)	0.7 / 3	11.0	2003	0	()	()
0323	14-1	05.4	119.8	14.3	V	0	1	U	ñ	100	100.51		10-/	0,40		284	20.1	1911	1111.4	07.5	13-5	SUFT	3	0	TO THE
0325	14.11	A.T.	10,2	10.0		G	*		-	246	1- 19	85	T 10	-11-41	0.745	10,075	- 0-	15/4	17:5	1.4	1116	HEA	1	0.	11
0326	14.2	06.3	10.7	119.3	1	Ü	+	+	0	183	10.9	0.5%	0.7 - 5	0.50		727	27.1	10.5	0.5 8	10.1	11.9	37E 7	()	0	D
0329	14.8	03,4	10.4	05.8	+	0	È	+	Û	1.24	13.4	0.51	D.O. P	0.47		638	26.5	12.5	12.0	08.2	12.2	2908	9	B	5
0333	13.7	05.8	11 0	08 5	10	Ð	*	(5)	0.	231	17, 1	11.6.3	ner a	11 40		79.0	25.1	14-5	00.7		111.3	36B3	7	7	5
0335	11.5	13.0	08.4	12,8	- 0	0.	1	0	0	177	16 6	10.739	0.7 . 1	0 =2	3.4	419	27.14	10.0	19-15	86 0	Luis	iAbn	"		
0337	13.2	04.9	08.8	16.0	0	0	†	0	0	167	14.0	086	10.5	0,52	0.52	530	28,8	13.3	17.0	08,5	18.2	2918	.3	n	0
0.338	14.0	05.7	10.6	09.4	+	0	+	į.	0	211	12,7	0.8.4	09.4	0 - 41		582	30.9	12.2	10.7	08-1	16.4	58B3	()	0	0
0339	11.8	06.8	86,9	10.5	0	0	П	-	0-1	17.0	10.2	0.91	-02/3	0.57	B	476	21.4	17:0	10.5	06.3	16-1	29/E0	B	0 -	17
0341	11.4	05.0	08.4	09.1	0	0	0	88	0	197	11.0	- 177.5	11 3	0.97	0.90	735	31.0	10.0	-13-7	0B.e	13,4	30104	0	0	0
0343	10.7	04.7	07.8	07.7	1)	0	0	+	.11	138	08.5	0.79	12.1	0.57	0.51	375	25.5	11.6	19.6	0.7 3	20.5	2907	3	Ð	0

				/			. Fr	ruit	1							F	lower						
/	1	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	10 m					le length	/0	vary lengt		vary widt	/s	staminode length in mm		pal length in mm	/s	epal width in mm		ule length	Ligule width In mm
138	13	to die die	2/2		3/2	2/2		mean	/ CV	mean	1/CV	mean	/cv	mean	CV	mean	/ cv	mean	/ CV	mean	/ CV	mean	/ CV /
10289	0	0.53		7	5	5	3	2.26	0.08	1.28	0.09	1.01	0.04	7.12	0.33	8,92	0.34	2.33	0.24	6.96	0.46	2,33	0.23
10270	0	0.78	5	5	5	3	5	2,29	0.21	1,22	0.06	1.01	0.02	7.85	0,30	8.94	0.30	2.29	0.33	7.49	0.43	2.19	0.14
10291	5	0 69	5	3	3	0	5	2.3	0.1	1:3	0.7	1.0	0.09	7.8	# 3	8.9	0.3	2.5	0.2	8.8	0.3	5/5	0.4
10293	2	0.79	5	2	4	0	5	2 22	0.15	1.44	0.10	0.90	0.08	6.98	0.20	7.52	0.48	€.34	0.26	7,65	1,00	2.07	0.29
10298	7	0.74	6	5	5	0	5	2.54	0.13	1.50	0.t0	1,03	0.07	8.31	0.53	9.51	0.55	2.80	0.19	9.99	0.57	3.51	0.40
10397	6	0.85	5	5	7	1	5	2.74	0.08	1,43	0.06	0.96	0.06	8.66	0.23	9-82	0.33	2.83	0.21	9,45	0,44	3.20	0.24
10304	3	0.57	4	3.	5	0	3	2:18	0-14	1 96	0.18	1,01	0.05	9.13	0.87	9.56	18 193	2,39	0.20	9.70	0.71	2.50	0.25
10311	U	0.04	4	3	5	1	7	2.32	0.15	1-53		1.05	0.09	8.70	0.30	11.39	0:43	25,04	0.10	10:46	0.61	2.57	0.23
10313	7	0.76	2	3	3	0	5	2.08	0.10	1.51	0.08	1.0	0.03	7,97	0.38	10.22	0.55	2.67	0.28	8,21	0.63	2.21	0.21
10315	0	0.71	5	5	5	3	5	2.34	0.31	1.42	0.13	0.95	0.08	7.84	0.54	3.77	0.69	2.49	0.32	8.71	0.90	3.01	0.34
10316	0	0.67	5	5	9	3	5	2.38	0.17	1.47	0.07	1.02	0.03	8740	0.23	9,57	0,91	2.93	11.31	9.30	0.48	2.93	0.00
10317	4	0.71	3	3	5	3	3	2.07	4.10	1.29	0.13		0.05	1164	0 50	0.76	# 59	21.30	0.16	8.25	0.03	2.92	0.20
1031B	5	0.74	4	5	5	1	5	2.17	0.16	1.58	0.10	1,07	0.08	8,33	0.42	9,42	0.58	2,54	0.16	8,88	0,48	2,57	0.27
10321	0	0,80	2	0	1	ţi	5	2.20	0.18	1 16	0 - 11	1.0	0.03	11/10	0.47	4.61	0,55	2.52	0.39	8.65	0.41	3.17	0.20
10323	14	D 86	16	5	6	1	3	2.43	0-21	1.35	a 15	1.01	0.03	7,82	0.37	9.57	0 51	2132	11:33	8.69	D.Chit.	2 87	0 24
10325	0.	0.79	5	3	7	1	1	2.54		1.42	0.705	1.53	0,10	8,42	0.142	9.20	0.19	2.51	1.23	B,73	0.51	2,54	0.20
10326	0	0.82	5	4	iş	t	3	1-69	0.14	1,86	0.19	1.18	0:17	8.07	0.47	9,45	0:39	2.80	0.27	8.31	0.22	2.58	0.25
10329	3	0.72	3	3	5	1	3	2.30	0.24	1.30	0,08	1.500	0.01	7,93	0.50	U., 35	$0, 4 \dot{\psi}$	2,29	0.23	8,50	0.46	2.93	0,08
10333	2	0.68	14	- 5	7	3	5	5.55	0,20	1.42	0.10	0.97	0.06	7,57	0.52	9/40	0.78	2.55	0.30	8,54	0.51	2.55	4.41
10335	5	0.62	9	5		v.	-2	3.08	0.14	1.27	W. 07	0.98	0.04	7.61	0.12.	8.10	3,22	2130	0,32	8,93	0.48	2.77	0.23
10.537	0	0.71	14	3	7	0	5	2,32	0,12	1,47	0 - 07	1.03	0 , 04	9,15	0.55	4 33	0,31	2.50	0.594	9.13	0.84	2.87	0.31
10338	0	0.72	6	£.1	4	5	ž)	2.25	0.14	1.19	009	0.79	0.03	drive!	16 1 85 \$	11.40	0.54	2.09	0.12	1139	0.48	2.71	0.23
10339	0	0.48	2	2	2	0	3	2,49	0,18	1.20	0.10	0.79	0 00	7.46	0.43	7.80	0.46	2.53	0.28	7.33	0.47	2.66	0.21
10341	0	0.71	3	8.	5	1	7.	BALE	0.30	1.49	0.06	1.02	0.0.	7.09	0.31	9.20	0 39	2.05	0.21	7.23	0.39	2.78	0 30
10343	Ū	0.93	4	3	14	1	7	1.60	0.07	1.20	0.05	0.00	0.09	4_00	0.50	6 70	0.48	2.20	0.20	7.50	0.30	2,20	0.10

900		-	100	/		Flower	5	Leaf	/	3-5	Catala	110000	Con	pstibility a	nd resistance		/
118	1	of real	A STATE OF THE STA	Se land	A SEE SEE SEE	See See A	1	A Sint R	eference	aphthora pain	References	gells period Re	ference	a did to the	References	stocytes timbries	References Notes
1726	/	Ser /	2 th / ch	1/4	THE SHE	/ 45th	10	20/	100	00/	/ Sin	*/	1	Still /	100	2	/
16289	3	3	1A2	0	2905	608					M-R	22,37	S	43	1-K	1,43	
10290	0	0	1A2	0	2985	6D7	0				R-	22,37,41			T-R	1	GOOD COMBINING AB
10291	0.	-0	944	II	3005	1007		2		46	Fire	1 23 15	199	Call II		13	
10293	0	0	TTAG	0	30.05	307			一日)	37							1081009
10298	3	0	10B5	7	30B4	8E6	θ	42,44									
10297	3	3	1164	3	3034	805	0	44									
10309	3	9	11,65	7	3004	DEA	3	10,11,20	T-R		T-R	1,37				43	GOOD COMBINING ABI
10311	7	D	1884	- 10	3089	706	O.F.	10,11,28	7-12	1	7-7	1	8	47	1.0		POOD COMPLKING OR
10313	3	3	11B5	7	3084	504	0	30,43			5	43.	S	43	1	43	
10315	0	7	9A3	0	3084	607	0	32									
10316	0	9	983	0	30C4	204	0	44				WA		3 3 3	23/3	94	
10317	3	3	1145	3	2984	907	11	32	TR	1							THYON, 165-487
19318	3	0	10A4	3	30E4	704	+	30			THE	1,37					
10321	0	0	1044	3	3004	404	0	32	R	27							DUBLOUS
10323	3	0	1149	7	3034	963	11	30			366				999	595	DUNTOUS
10325	3	0	984 -	0	3006	907	· U	30			-	1					
10326	0	0	10A3	0	30C5	7E.7	0	41,42,43	S	4.3	6.	43.			S	43	GOOD COMBINING AB:
10327	0	0	9A3	3	30C5	407			d.								DUBIOUS; MEX. TYPE
10333	0	3	PAGE	3	30A4 -	npo		75.5		333	0			733			DUBTOUS: MEX. TYPE
10335	3	0	1169	7	3000	907		10,00,02			1-8	1,32,77		ua		113	
10337	7	7	10A4	0	30104	હતા 6	0	28,42,43				43	5	43	Ī	43	
10338	0	0	9 A 3	:;	3000	565											
10337	7	7.	1002	0	3092	507		666	100		-	-			- 4	37	
1 11 74 1	7	7	1503	0	3089	796	m	90-pi 92	TR	- 1		9.5		43	1-0	1743	BOOD COMBINING MB.
10343	3	.3	8A3	0	50104	74.7		4.									

			200			19875	General	SERVED SIN		The Party Manual Wall
TUR	The state of the s	10 20 20 and	a real to	Accession name	e Synonyms	Cour of orig	ntry subeliois		in /s	Name of collecting source
10394	G	17	12	LARANJA		BRASIL	BAHIA	BAHIA	3	MUTACION
10305	B	29	9			COSTA RICA	CARTAGO	TURRIALBA	3	CATIE
10346	TR.	20	10	Le Chille		marino.				
10351	1	15		na-12		DRADIE	Annzonas	HAMAUS	I	See antonio
10352	J	14	7	MA-13		BRASIL	AMAZONAS	MANAUS	1	SAN ANTONIO
10353	6	23	14	HATINA		COSTA RICA				
10368	1	10		MOCURUNGU		WKAUII.	FARK	SANTARCH	3	ESTAC EXPERIMENTAL
10372	B	- 6	10	NA-34		PERU	10 m		Ų,	
10374	В	11	13	OC-77	SC0-77/VLA-006	VENEZUELA		OCUMARE	2	HDA. MONASTERIO
10376	C	61	6	P-10	10P					
10375	10	30	11	P-15						
10380	H	31	11	P-16		A 31.		The same of the same		
10381	Н	27	11	P-19	19P					
10382	J	7	8	P-19	19P					
10383	H	28	15	P-20	207					No.
10385	Te	80	5	P-23	238		Marie Sales			
10387	В	43	1.1	PA-13		PERU		PARINARI		
10300	C	72	9	PA-16		PERU		PARINARI		
10389	3	9	9	PA-10		VERO		PAPTHARI		
10390	E	74	13	PA-BT	PA-18	PERO	· Barrie	PARIHARI		
10391	В	41	8	PA-121		PERU		PARINARI		
10392	B	31	14	PA-121		PERU		PARINARI		
10393	H	35	8	EA-167		PERU		PARINAR1		
16397	G	14	10.	PORCELANA: 3	TV	VENEZULLA	150 25 6 30			
10398	G	24	15	POUND-7		PERU				

- Charles	/	Genera	il .		/		Production		/					Seed		- 1		
Tare de la constitución de la co		-/	0/3	3/		/	//	/		1	/	/	//		1	8 E 8 / 8	8 /	
1 25.00	Washington	ate of the city	S Jan Lin	1	/	10	1000	Wets	eed		y seed	Series of the series		nber of	13000	THE THE PARTY OF T	See	d length
124	Pedigree	" day	100/	Sille /	Signal !		# p	weight in	-/	weight		100	seeds po	15	CHILINE AND	15 A L		mm Jagar
				19	18	1	mean	-	-	/		ge / mea	-	1	Spill Spills		1	1
10344	1978	0.7	45.7	.71	7	43	1.15	16.7	-71	20.7	0.01	30.38	- Vr. 6	0 72	n., 148	19.6	08.2	0.63
0345	1979	11	24.2	1.61	22	35	_	_		_		-	_	-	0 0.46	-	-	-
1.0346	1079	11	40.7	1.13	1		1,99	13.4	1.13	10-0	0.57	21-7	26.0		= 083		0516	0.55
10351	1880	85	32.6	-83	100	THE	1,78	12,0	HR	1 - 1	11-65	10 B	9 11	H-SA	0.000	24.5	05-11	0.50
1.03552	1790	0.7	29.8	83	7	14.5	1.00	10.2	113	120,4	0 v1	31. 9	3)1- (4	0.55	0.075	23.5	8.60	0.48
10353	1980	0.2	23.7	1.16	1	4.4	1.83	08:8	Lila	11.5	11. A4	38-4	16.5	833:11	0.083	23.9	02.9	0.56
0.360	1990	05	27.0	.73		50	1.80	11.9		11.9	07.0%	2012	DAY.	0 17	11 086	24.14	2.00	0.96
10372	1979	10.5	39.8	1 12			1.67	10013	1017	06.7	0.5 = 0	35-1	70.7	0.001	31 - 03/5	13 3	114 - 01	0 535
10374	1979	0.1	14.2	2.13	lş.	rtrr	3,10	10,1	*). =	(119. 11	0.50	20.0	erte in	$-(1-\lambda_{10})$	0.036	26.8	05.6	0.57
10370	1976	(04	18.8	1.69	7	1(2)	2.77	WB.	1.89	0.5-2	0.551		1973	0.190	0.7040	26.3	06.1	0.81
10379	1979	04	31 1	.79	. 5	41	1.47	ATT	-94	100	0.67	341	10.7	0 83	0 079	Prop.	05.76	0.50
0380	1979	112	29.7	-88	5		1,74	000		00-6	0.68		77.0	0.75	0.000	2000	D14 11	0.55
10381	1979	0.8	39,4	.71	7	(£5).	1 21	1.00 50	-21	0 = 4	0.7.	30, 1	11	11 75	0 100	17.7	04 6	0.51
10302	1980	6.0	34-2	-87)	117	1.91	19.0		J 00	"U g xxx."		240 s	$0 \pm i^{-1}$	0.077	14.0	05.5	0.53
03B3	1979	06	26,3	1.97	6	45	1165	10.0	1.07	11.7	0.45	1º 4	50.14	11.79	4.011	53.5	0,17 5	0.23
(0305	1979	0.1	30.0	799	7	14.14	1.65	107.2		1000	0.57	350.00	23.9	0.190	0.000	35.4	011.7	0:59
10387	1979	0.3	10.7	1,05	3	G().	1 . 10 5	1.0	0.000	0.24	(f) - m ² (r)		1916, 27	0 100	0 = 0.5(0)	22.0	08.8	0.50
0389	1988	0.7	39 - 8	. 85	5	14.00	1120	0.2		$(t \cdot \varphi \cdot \eta)$	$H=\Delta t_{\rm B}$		Work	0.70	0.077	200 3	04.5	0.55
0389	1980	0.5	36,1	.81	de	47	3127	35.5	J.B.	14.7	0.83	34.1	53.0	0.70	0_084	20-7	06.9	0.50
0370	1900	08	27.9	1,11	3	47	1581	07.7	T. 1.1.	0)1.4	0.09	32.6	107	11.69	0 009	2916	03.0	0.53
10391	19.79	0.7	15.0	Ţ	54	9.1	1 , 4 (0)	10.1		11.0	0.14	-Y.0	25.1	M n	11 11/0.	21 0	04.8	0.53
10392	1979	0.55	847.15	- 5/4	7		1.50	25.0	99	Pon			1 - 31	0.75	0 - 0765	22.1	05.5	0.50
10393	1978	0%	30.4	1.07	5	4.1	1,69	12.2	1.97	12.5	1,63	30.0	24:0	8 72	0-065	23.4	03.8	0.53
10397	1979	05	28,1	1 (05	2	40	11.67	11,4	1 15	13.0	9+60	33.0	29.0	0.70	0.056	21.3	09.9	0.81
10398	17/78		51 7	1/1		14		94, 1		1 11		36 %		001	0.000	21.0	05.1	0.56

1			/				S	eed				/						F	uit	Gatte)	17	- 1	17-		
/	mear mear	* / Se	ed width	Sec	ed th		55/	100	Cotyle	don colo	_	ruit leng	rth /	Fruit wid	th / Reit	de mes	o de Fr	ruit weigh	this	Fruit wal		Fruit was skness at in mm	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	post district
138	mean	/cv	mea	n/cv	/	10/	\$ P		1 / A	mean	7	t /me	an / C1	1/2	No. Street	mea	in/cv	mea	n/cv	mea	n/cv	1	1	8/3	E LIBE WIT
0344	12.3	05.7			0	0	+	0	0	069	11.6	074	10,8	1.07	*	208						2903	0	0	0
0345	15.7	08.9	10.4	12.5	U	0	+	0	0	171	12.3	095	12.6	0.56	0.50	715	30.9	14.1	14.2	07.8	18.5	29B3	9	0	8
0346	12.7	05.4	10.8	07.0	0	1)	15	0	2	200	10-7	0.03	119.7	0.50	0.49	866	27.9	14.11	15.1	08.9	38 0	3008	9	9	8
0351	10.8	05,6	08.2	07.B	0	8		0	0	371	200.5	077	09.1	0.95		427	28.3	09.5	14.7	06.3	10.9	3004	U	0	00
0352	11.2	04.5	07.3	09.6	0	0	+	+	n	142	13.4	079	11.4	0.56	0.61	370	34.9	09.2	14-1	06.2	17.7	29B3	0	Q	0
0353	13.3	04.5	08.3	08.4	0	0	0	÷	0	148	09.5	093	06,4	0.63	0.51	579	22,1	12.0	12.5	07.1	18.3	3004	Ü	0	0
1368	11.3	08:2	07.4	84.4		0	9			153	11 1	UBU	07.1	0.55	0.55	W17	2970	49.3	13/3	05.7	49.0	29EU		11	1
0372	12.7	04.0	08.4	08.4	0					189	00-2	0104	184 5	W.DE			1.8. V.	12.3	-07_1	07.B	- 1.0 . 4	2865	U	0	0
0374	15,4	08.5	10.9	09.8	- 17	0	0	í	31	212	10.0	0.29	000,8	0,47		213	21.8	15.0	10,4	10.4	13.5	2907	9	7	7
0376	14.6	8.60	11.4	10:5	+	0	1	7	$\bar{\theta}$	234	14.1	007	0.5+9	0 - 37	0.50	701	20.5	19.7	$12\!<\!7$	08.2	15.8	2904	0.	0	0
0.579	12.2	00/1	00.2	13,0		U		4.	11	101	0.5.7	0.1	O.T.	0.911				09-5	1110	11.67,15		31105			0
0380	11.5	09:1	0013	118 0	0	0	0	4	an .	150	2113	ner				11,22			10.1	B c 0	00.9	2800	10	-1)-	D -
0301	10.0	05,0	06.8	10.3	0	Ü	0	×		100	1117 14	070	85.7	0.007		500	5,6	09,5	10.4	05.5	15.4	28E /	-0	0	0
0382	12.1	07.4	08.6	11.6	+	ė	i	3	19	178	08.7	0.76	$0.7\!\times\!1$	0.03	0.51	439	21.8	10.7	11.2	07.0	15.7	30E7	0	0	0
EBEO	12.5	011.6	018.79	110	0	0	0	3		15%		0.225	011,8			50-		11.4	10.2		20.0	30165.		U	0
0385	13.7	04.4	08.0	09 0	0	11	U	8	D 1	302	0.00	0.79	Ub- 5	0.50	1022	- 100	20,00	09 A	-11.0	-05 , 10	14.9	281/2	4)	-0	16-
0387	11.1	05.1	09.0	07.7	= ()	0	()	ŧ	0) 9.0	42,3	0.04t	000 5	0.4μ		550	35.5	12.4	12,3	07:4	16.7	2883	0	1)	0
0366	11.0	04.5	07.8	97.7	0	0.	+	+	0.	180	11.9	081	00.0	0.343	0.55	3611.1	30.1	10.3	14.8	07,8	16.7	29E7	0	-0	0.
0.389	11.3	07.0	07.7	0 > 0	0	0	1	0	0		20-0	081		W- 12		hon		10-0	Itin	90.0	130.2	2013	-	18	11
0.170	12.0	09.1	00.7	0.00	-0	17				1270	150	0.79	79.7	-9.5%	. Wine	West.	22.7	To R	11:11	- 07.4	119.14	290,9	-	0	0
10201	11.5	06.4	08.2	12.5	b	0	11	3	O.	151	00.5	0.8%	0.80	0.55	0.300	280	225 7	09.2	10.6	05.3	19.4	29165	-0	1))	0
0392	11.0	06,4	08.2	13,7	ij	()	- ()	+	0	1.79	13.0	082	02,1	0,47		427	20.0	0B.5	12.2	05.5	14.3	5900	0	Ü	0
0393	12/5	00.4	10.1	*11 0	II	0.	-	8	-11	154	11910	ner	89,0	0.50		474	29.4	10.0	42.0	187.8	1311	2702	1	-2	0
0397	12,0	057)4	77 -	100	1	0	33			time	17.3		Lack.	11.64	-0.00	salate	Still	14,4	11.4	07.4	16 7	TOUR	91	-	TO .
0.128	11.8	05.1	08.6	11.5	0	-0	0)	. 1	0	151	14.3	076	10.5	0 -0		918	35.4	11.5	10.0	07.3	10.5	3011%	n	(1	(f

				1			P	ruit		/							Flower						
/	1	Second Second	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		le length	/0	vary leng	th /c	lvary wid	th /s	Staminode length in mm	1 4	pal lengt	/	Sepal width		pule length	Ligute width
139	1/4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18 /2	18/4	13			mean	/ CV	mea	m/cv	mea	n / CV	mea	in / CV	mean	n/cv	mea	/cv	mean	/ cv	mean	/ CV /
0344	0	0.92	_	_	_	_	3	1.70	0.11	1.30	0.10	1 , 0	0.06	6.34	0.46	7.06	0.37	2.57	0.16	5.95	0.40	2.33	0.25
10345	0	0.61	14	5	3	0	5	2,20	0.10	1,40	0.10	1.10	0.10	7,70	0.40	7.70	0.20	2.20	0.20	8.80	0.70	3.10	0.30
10346	7	0.11	B	9	-9	5	5	1 87	0.13	1.48	0.10	0.78	0.04	7.61	0.55	19,55	11,39	2,52	0.19	9.49	0.93	2 43	0 21
10351	0	0.78	3	2	5	5	7	2,99	0.13	1.43	0.07	0.90	0 / 104	7/04	0.34	7.66	0:43	2.20	11.25	6.52	0.42	2.57	0.24
10252	0	0,80	2	2	3	4	7	2.10	0.21	1.14	0.12	0,93	0.07	5,70	0.76	8.23	0.58	2,06	0.25	5.95	0.62	1.80	0.26
10353	0	0.78	5	3	3	1	7	1.98	0.19	1.38	0.11	0.97	0.08	7,25	0.46	0.02	0,48	2.28	0.21	7.13	0.46	2.04	0.18
10368	0	0:69	2	2	3	199	7	2,12	0.17	1.47	0.09	1.0	0.09	7.92	0.35	7.78	0.50	2,15	0.Eu	5.85	0:30	2.51	0.10
10372	0	0.62	5	5	5	1	5	2 22	0.15	1.30	0.09	0.99	0.03	5.95	0 39	8.58			0.20	4.93	0.34	- 02	0.30
10374	5	0,73	3	5	5	0	5	2.15	0.11	1.37	0.07	1.01	0.06	B.05	0.35	9,42	0.42	2.51	0.21	8.21	0.78	2.73	0.26
10378	0	0.69	5	7	8	1	3	2.26	$\{(1,1)\}$	1.19	0.03	1,04	0.03	7,25	0.27	8.95	0.53	2.13	0,15	7.77	0.48	2.69	0.29
10374	0	0.56	4	3	5	5)	5	200	0.19	1-24	0.11	0.90	0.04	7.55	0 35		W-56	2.40	0.76	4.26	0.40	2 29	0-20
0380	0	0.71	2	3	7	1	5	3.48	0.10	1.31	0.00	0.75	0.05	7.93	0.96	8.05	0.51	3.19	0.23	6.61	0.50	1,94	0.07
10381	0	0.78	5	3	5	1	3	2,24	0.23	1.23	0.09	0.97	0.05	6.70	0.76	7.69	0.89	2.16	0.25	5.57	0.82	2.07	0.20
10302	Ū	0.74	34	5	5	1	7	1,7	0.2	1,5	0.1	1,3	0.1	7.0	0,2	7.7	0.4	2,8	0.2	8.2	0.5	3.3	0,2
10383	0	0.73	4	5	3	5	V.	2.37	0.19	1.51	0.00	1.0	0.03	1.50	0.54	7.110	0.43	2.15	0.23	7.82	0.91	2.51	0 19
28501	0	0/89	5	3	3	1	5	2,11	0.15	1.39	0.10	1.00	U.Db.	7, 87	0.50	8.45	0.53	2.02	0.19	7.78	0.60	2.39	0.3%
(0307	0	0.01	5	r	7	v_{γ}	5	2.01	0.4.50	1,46	0 4.6	1.0	$0.70^{\circ})$	7.570	0.90	UPLANCE	$y_i, y_i \underline{t}$	2.81	0.114	7.0	0.47	2,18	0.29
10300	0	0.91	1	2	q	3	7	2.18	0.11	1.11	0.07	0.97	0 ((5)	7.45	0.27	7.45	0 25	2.10	0-17	6.40	034	2.06	0.07
10389	ŋ	0.53	2	2	6	2	5	2.37	0.13	1.24	0.24	1.02	0_04	7:07	0,54	2.00	0.91	2.36	0.10	6.90	0.39	2.01	0.05
10390	10	0.81	2	-2	5		5	9.60	0.27	1.30	0.19	1.1	0.05	0.40	0.89	n,v	0.48	2.40	0.20	7.40	0.54	2,20	0.37
0.191	11	0.01	5		3	1	5	2/17	0:15	1.03	0.10	11,99	0.3	0.09	0.00	6.05	0.95	_a 1ky	11.35	1-23	0.53	2.03	0.09
111392	,07	0.27	14	5	÷y.	1	3	25,29	0.29	126	$u \mid 1.0$	0.99	0.9	6.78	(l-3h)	0 61	$0 + \varepsilon \wedge$	2.10	0.14	6.21	0.35	2.0	0.15
0393	0	0.70	2	1	5	7	3	7.41	0.11	1.27	0.07	0.98	0.00	6.784	0.30	7.06	0.51	2.68	0.17	6.03	0.37	2.33	0,23
10397	0	0.66	7	7	7	1	3	2:10	0,13	7 24	0.88	1:0	0.05	7.28	11.39	7.91	0.77	2.70	0.20	7.34	0.67	2.94	0.31
10399	U	0.70	14	5	.3	0	17		11 400	1.5	0 15	0.71	0 11	A	0.50	7.7	0.24		0.32	5.9	0.27	2.2	0.32

TE			-	1		Flower	1	/ Leaf	/				Com	patibility and	d resistan	ce	
/	1	1000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s	er lain	chin de la constitución de la co	Hugh o		Reference	season the party	Referen	ces della della	Reference		Reterenc	Sea Too April 1 Leading	References Notes
125	1	A. E.	20/03	2/	Print Sep	1 45	1	\$	10	No.	/	Olinia/	10	8/	/	5/	
10394	7		1044	0	30E4	707	+	P									
10395	3	3	9Å3	3	3004	106											
10346	3	D	1104	7	30184	957											
10351	7	3	9A4	0	3006	607		200		559	-	200		-	1	9 500	
10352	3	0	10A3	0	3014	807											
10353	3	3	10A3	3	30B4	907											
10360	3	3	8A2	0	3005	707											
10372	3	9	10A3	α	30A3	705											MATEL WA H
10374	0	0	11A3	3	30B4	806	+	41,42,43	S	43					T	43	GOOD COMBINING ART
10376	0	0	10A2	0.	30A4	706	0	P.									
10379	3	U	102	0	2904	5,07	(1	44									
10380	7	7	9A2	0	3005	707	u	44									
10381	7	3	9A2	0	30B4	907	0	44									
18382	0	0	8A3	0	2905	707	0	44									
10383	7	0	10A4	0	30A3	9E8											
10385	0	5	9A3	0	3005	505		1									
10307	3	0	9A2	0	30C5	604											IS PALMIVORA
10388	7	3	9A4	0	2905	406	+	9.1									
10389	3	7	9A3	0	3004	707	4	41		44	-						
10390	2	0	842	U	29B4	607											
10391	0	0	10A2	0	30C4	505	0	42	R	36	R	iş iş	1-		R	44	
14392	3	0	10A2	0	2904	606	0	42	R	36	R	44			R	i _k i _k	
10393	3	3	9A2	0	3004	604	9	2.34		1	1	-	7	937	1888	35	1000000
10397	U	D	10A3	3	2904	507											10001005
10398	3	3	1A2	0	30A6	606	0	41,43	T-R	1,43	S	43			Т	43	GOOD COMBINING ABIL

		/			Shering Lines	1012 10	General		1	Agriculture Butter of State of
TUP	and a	and acon	and the state of t	Accession nai	me Synonyms	Cou	ntry Politi subdivisi of origin		in /3	Name of collecting source
0.500	B	56		POUND-7		PERU				
D9-011	G		15	POUND-12		PERO				
0401	W	57	12	E0100-15		LF411				
0407	H	44	5	114-4		VENEZUELA	MARKELHJ 110	PID-CA(A18600	3	FINCE PRIVADA
04.15	C	32	9	K-2	2R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
0417	C	34	13	K=3	45 E	ML XICO	CHIAPAG	TUXTLACHICO	2	HACIENDA LA RIOJA
0410	0	35	14	P. 11	OV-	DRESTUD	CHINCAS	10/04/2004/00		HATTENDA NA RIDUA
0419	E	lá	1	R-1.0	10%	MENTED	CHIAPAS	TUYTLAURICO		HACTEMDA LA RIGJA
0420	C	37	6	R-1.3	13R	MEXICO	CHIAPAS	TUXTLACHICU	2	HACIENDA LA RIOJA
0421	C	38	В	R 15	15R	mEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIDJA
0422	0	39	14	R-19	128	MEXICO	PHIAPAS	TOX (LACHIDO	2	HACTENDA LA RIBUA
0435	. 6	50	12	R-71	718	ME- TCU	LHINDAS	TUXTUACHICO	2	HACTENDA LA RIGJA
0435	C	51	10	R-75	75R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
9437	C	52	7	R-76	76R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIDJA
8540	E	53	6	R-78	484	MEXICO	CHIAPAN	TUSTLACINCO	2	HACIENDA LA RIOJA
0441	t	56	.8	R-105	105R	HERICO	CHIANAS	TOXTLACHICO		HACTENDA LA RIOJA
0143	С	58	4	R-113	113R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
0444	С	59	7	R-117	117R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
01447	6	40	12	RB-37	STATE OF STREET	BRASIL	RID ALRE	ISLA AMAPA	2	HOLD THE PARTY OF
9448	0	41	1.3	RB-39		DRASIL	RIO ACRE	ISLA AMAPA	2	
0449	н	57	7			COSTA RICA	CARTAGO	TURRIALBA	3	CATIE
0450	G	42	12	RB-41		BRASIL	RIO BRANCO	CHICO PEDRO	2	
8452	6	14.14	9	RB-46	STATE OF THE PARTY OF	BRASIL	RIO BRANCO	COL. GABINO VISORO	2	STEPHEN OF THE
0456	G	28	12	SANTA CLARA-3		CUSTA RICA	ALAJUELA	SANTA CLARA	2	
0457	C	66	11	S.C-5		COLOMBIA	VALLE	PALMIRA		

	ENGN	Genera	al .	100	1	Pr	oduction		/				FLE	Seed				2
1 # /	STATE OF	1	1/	/		1	11	1		1		/	1		18	\$ / 3	1	/
Tile state of the		of Bedding			/	/2	1 30	Wet se	ed	Dry	seed	12 3	Numl	per of	1000	100	Seed	longth /
Pedigree	/	389/	Se Se Line	ing /	Indet		3/	weight in		weight	ing /	Sed Sed	seeds per		# 1 5 S		in n	X
121	1 78	1 4	1 4	13	10	2/43	mean	/ CV	/ mean	/cv	1 4	mean	CV	1000	4 48 M	mean	CV	123/
10399	1979	0.7	20,4	1.17	6	54	1.73	06.8	1.17	07.0	0,67	42.0	20.5	0.78	0.058	22.9	05.5	0.55
10400	1980	0.6	27.9	.87	3	53	1.21	07.2	.87	13.7	0.72	41.0	20.2	0.77	0.081	21.6	05.5	0,46
10401	1555	0.5	24 3	1,05	4	55	1.43	09.9	1.05	12,2	0.24	39.1	22.4	0.71	0.070	22.0	06.3	V.45
10402	1700	179	40 B	1.51	1,	35	2,47	26.I	1,51	25.3	0.01	37.1	25.3	0,67	0.049	27.4	07-7	0,58
10415	1980	04	17.5	1.73	ó	rtrt	2.61	12.5	1.73	10.8	0.66	32.9	28.0	0.75	0.058	24.9	05.6	0.59
10417	1980	0.6	16.2	1,82	5	46	2.67	09.7	1,82	11,7	0.68	33.9	29.5	0.74	0.039	25.5	06.7	0.58
19418	17Bn	117	31-2	1.57	3	40	2:53	05.3	1.57		0.62	30.0	24.0	0.25	0.04)	24.5	115.2	0.60
10419	1986	0.55	17 4	1.66	5	45	2.54	07.4	1.65	05 =	0.45	30.8	25, 5	0.88	0,039	25.1	0.0.6	0 554
10020	1980	0.6	20.5	1.55	7	41	2.49	12.8	1.55	09.1	0.62	31.5	28.3	0.77	0.053	22.9	06.1	0.59
10421	1980	02	22.5	1,33	4	43	2.05	8.80	1.33	08.0	0.65	33,4	24.2	0,78	0.064	23.9	03.3	0,58
10922	1700	. 117	35.5	1911		90	2.12	10-0	.99	18.5	0.50	33.5	351.4	0.73	0.056	23.1	08.2	0.58
10435	1680	07	43.0	1.45	4	48	2,40	07-1	1 45	19-3	0.52	35.3	24.9	0.74	0.057	29.1	95.0	0.58
10434	1980	0.20	19.2	1,47	E	48	2,36	08.1	1 47	11.8	0.62	35.5	29.6	0.74	0.043	24.1	05.0	0.56
10437	1780	0.5	60.1	2.13	3	47	3.28	06.5	2.13	05.6	0.65	35.5	26.5	0.76	0.040	28.8	06.6	0.55
10430	1990	84	1.5	1 20		922	2000	15-1	1.29	10.0	0. 54	34.5	17.7		0.000	24-0	17.7	0.57
10441	1940	0.5	21.0	1.45	N	45	2.07	119.4	11/45	11.2	0.70	37.4	29.0	0.72	0.054	29.0	19/5	0.52
10943	1980	(j. b.)	10.5	1.34	3	45	- 4	11.5	1-59	tu-2	0.80	30.9	20.5	0.80	0.049	23.8	06.7	0.58
16444	1980	0.4	$\Omega_{-}\Omega_{-}$	1 - 21	5	43	2.55	0.9 ± 7	171	$t.0 \pm 1$	0.67	34 27	19.0	8.81	0.048	24.9	04.0	0.58
10947	197/	05	11.7	Lil	25	18	112	00.5	1.1	OEL 2	0.55	30.0	17	0.79	0.674	73.H	11.8	U.51
34401	3500	47	29.0			50	7.35	1/2 15	99 -	10.9	11.68	30.6		0.77	0_085	22.0	07-7	0 56
10449	1980	0.5	93.7	85	7	440	14 201	25.1	45	27.0	0.53	-8-4	19.75	0.77	0.087	20.7	08.7	0.50
10450	1977	1.1	4.7 - 7	89	v'	1435	1-19	19	39	25.0	0.50	30.5	29.2	0.64	0.094	21.3	04.8	0.52
10452	1979	7.1	39.9	30	19	51	1.25	34.2	75	10.4	0 74	31.4	24.5	0.62	W 201	20.8	05.50	0.51
10456	1978	1/2 1	49-7		-51	No.	1.91	06-6		He D	0.58	31.4	25.0	0.09	0,095	19.8	05.1	0 50
10457	1980	0.6	27.2	1 37	H	1) ()	2.14	17-8	tear	14 -2	0.09	28.0	26 0	0.57	0:045	24.8	05.6	0.54

-	-	20	1	333			S	eed	14638			1	83	A III I	200		E162	Fr	uit	District Control	47.0	113.5		13	204
,	mean	\$ / 54	ed width	Sec	ed thi		31/	100		don colo	-/	Fruit leng	pth /	Fruit wid	th Andrews	Marie Marie	2 de / 5	ruit weigh	this	Fruit wal	/ thi	Fruit wa ckness at in mm	"/"	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
138	mean	/cv	mea	n/cv	1/3			(3) (8)		mean		v /me	an / C	1/2	S. Carro	mea	n/cv	mean	/ cv	mean	n/cv	1	1	8/	
10399	12.7	U9.6	08.4	07.8	0	0	0	+	0	185	11.7	092	09.0		0.53	723	27.0	12.9	10.5	08.0	10.5		0	0	0
10000	09.9	04.0	07.1	07.0	0	0	+	+	0	169	14.0	084	10.2	0,50	0.54	504	30.8	11.7	12.8	07.5	14.7	3006	0	0	0
10401	10:3	03.7	07/4	12.7	0	1)	0	X	0 -	1/7.0	10.5	000	09.3	0.30	0.34	555	40.8	12,2	19.9	00.1	15.0	2750	0.	71	0
10907	15.4	V-1	10.4	11.5	-1	0		1	4	213	8,8	1	.7. 0	0.43	0.42	750.	22.0	14.5	15.8	100	13.4	MINCH	1	4	6
10915	14.6	04.1	10.5	09.5	0	0	+	+	+	200	10,5	086	09.3	0.43	0.48	569	29.5	12.3	13.0	07.9	17.7	2983	1	1	0
10017	14.7	04.1	11.5	07.8	+	0	4.	+	0	241	12.4	093	05.4	0.39	0.50	868	19.2	15.1	09.3	09,6	12.5	2904	0	0	0
10418	14.7	05.4	11.1	06.3	+	ņ	6	-		227	14 / 8	003	10.1	0 37	0 113	-1704	30.2	21.1	34.7	-00.2	20.5	2793	1	0	0
10415	10.0	04.3	10-6	06.4	+	ü	3	1		531	13.4	073	05.2	0.40	0.52	79.5	IP+B	19 1	13.5	(00) b	1100	2983	0.	- 10	10
10420	13.4	06.0	10.0	13.0	+	0	+	+	0	221	14.5	084	10.7	0.38	0.54	598	33.8	12.6	17.5	07.2	13.9	2904	0	0	0
10921	13.9	05.7	10.6	10.4	+	0	+	1	0	214	14.0	0.79	10.1	0.37	0.49	525	30.3	11.8	14.4	06.3	20.6	2904	2	0	0
10422	13.4	05.2	11.0	08.2	t.	0	4		0	121	11.0	1150	12.1	4-57	0.49	\$99	32.3	13 3	14,3	97.7	18.9	2904	0	15	ā
10435	14.0	05:0	10.5	10.5	0	ñ.	*	1	25	200	12 1	006	90/1	8242	0.50	635	27.2	15.0	12,5	08.1	11.7	2909	7	1	1
10436	13.6	04.4	10,9	06.4	+	0	+		0	238	10.1	090	07.8	0.38	0,49	776	24 1	13.8	10.1	08.0	16.2	29B3	0	0	0
10437	15.7	06.4	11.0	08.2	+	0	+	+	0	208	09.8	183	07.8	0.50	0.50	896	21.3	16.0	11.2	10.8	16.7	29E8	0	0	0
19438	13.7	5.8	813	9.7	-	0	7	1	1	185	111/4	96	11.6	0.48	0.00	574	33.4	13.7	16.1	9.1	16.0	5AR2	A	0	0
18441	14-1	17.1	10,5	07.6	1	0	-	5	*	196	12-7	#85	109-4	0.43		903	29.11	12,1	.09.9	88.5	14.1	2964	0	0,	0
10443	13.9	04,3	11.0	07.3	+	0	+	+	+	233	10.7	087	10.3	0.37	0.51	750	27.9	13.3	13.5	07.9	17.7	2904	0	0	0
10444	14.5	06.9	10.9	07.3	0	0	+	+	+	212	11.8	090	07.8	0,42	0.43	729	24,4	14.1	13.5	08.8	15.9	29118	9	8	7
10097	12.1	16.8	07.1	09.7	.00	0	11	H	0	151	30 7	maa.	87.9	4.72		21/1	2517	11.5	12/6	17.4	14.0	3004	- N	10-	0
	10.9	Trans.	07.8	-		0	1	0	0	150	10. 1	-	4	0.54		454	31-1		10.7	07.2		1005	0	0	П
10449	10.3	06.9	07.6			0	+	0	+	177	09.0		09.1		0.52	425	21.2	12.4	09.7	08.1	11.1	2918	9	9	7
14450	11.0	07.0	-	-	-	0	+	-	0	168	10.1	-	07,5	-	-	326	22.3	10.3	13,3	05,3	-	3006	0	0	0
10452	11.0	05.0					-	7.		159	1076				0,47	312	51.4	0919	17/8	115.4	23.7	3058		0	"
10455	11.5	05.8	07 B		_	-0	3	0	-	136	10.7			0.56		334	28,1	09.6		08-1		1404	0.	- 11	
10457	13.3	06.8	09.9	09.1	0	+	+	+	+	191	11.3	084	06.2	0.44	0.50	599	25.4	13.9	15.8	08.4	19.0	30E8	9	8	2

3134	100	Mil		/			F	roit	1	/			-11	HILL	NO.	- I	Flower			1	5-1		0.0
/	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s	10 mm / 10 mm	and a	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				le length	/0	vary lengt	th /o	vary wid	th /s	Staminode Tength in mm	se	pal lengti	/	Sepal width in mm		pule length in mm	Ligule width in mm
138	1/2	E 25/ 21	1 /d		3/4	E/2		mean	/cv	mea	n/cv	moai	n / CV	mea	n/cv	mean	/ cv	mean	/cv	mean	/ cv	mean	/cv /
9399	0	0.83	3	3	4	0	+	2,42	0.17	1.49	0,07	1,01	0.04	6,0.	0,42	7.83	0.02	5195	0.14	6.91	0,43	2,41	0.38
0400	0	0.68	3	3	ā	1	5.	2 46	0.10	1.15	0.09	0.05	0 03	7,18	0.22	8.44	0:64	2,19	0.23	6.39	0.18	2.05	0.22
0003	0	0.7%	by	5	3	1	20	2.71	5.00	4,85	0.00	O'NE	0.09	1.39	0.42	0.00	4.07	3115	0.10	6,87	0.53	2.18	0.20
11407	0	0.26	3	5	3	3	5	- 7.10	1113	1:93	0:00	1.00	0 (0)		11.18	0.65	0 47	2139	0 18	1.53	0,27	7.03	9 34
0415	0	0.78	3	5	4	0	S.	2.24	0.18	1,25	0.00	1,02	0.705	7,77	0.55	8.6.	0.42	2000	0.70	8.41	0,54	2.61	0.32
0417	0	0.79	4	6	8	3	5	2.23	$0 \in \mathcal{D}^{\ast}$	1.23	0.11	0.78	0.04	7,95	0.42	9787	0 55	2.00	0.12	8.21	0.44	2.65	0.25
04 (8	0	0-10	7	4	5	T			0.75	1.49	11.07	1.03	0.05	6.02	0.37	8,88	0.43	0.7	0 : 7.0	8 (0)	0.81	3,09	0.22
0417	0	0.07	50	5.		4			11 2	1-2	-0 V	16-5	11-1	0.5	0.5	9 0	0.0	8.1	4.2	8 0	7.0	3.0	11.2
0420	0	0,67	2	5	7	3	7	2744	0.13	1,19	0.13	0.99	0.07	7.65	0.59	9.97	0.30	2,39	0.39	7,77	0,45	2.65	0.30
0421	ij	0.79	3	5	U	9	5	2 41	0.14	1.18	0.09°	0.96	0.102	2,07	0.49	6.01	(1 4 1)	27,22	$() \ \ _{v} \overset{\gamma_{0}}{\approx} \ _{\varphi}).$	8.02	0.67	2,75	0.23
0422	0	0.68		1		3			0.50	1.11	0.0	9.70	0.09	7702	0.59	y. 15	11 - 51	3/21	0.70	7.78	0.59	2.73	0.27
0935	0	11.77		4	6	0		2.27	0,19	F.TS	0 10	0.90	11.99	21-64	0.40	0.55	0.30	2.3	0.25	3.70	0.55	1.11	0.29
0638	0	0.71	6	Y	9	I	5/	2,25	0.10	1.20	5.00 - 00	0.29	0.00	Link	0.44	9.15	0.50	= -54	0.35	8.71	0.45	2.91	0.14
0437	U	0.73	3	3	5	Ü	i,	2.0	0.45	1 -4	0 . 1	1 _1	0.1	9.4	0.6	4.0	0.57	2,5	0.3	8.8	0.9	3.5	0.4
11428	.0	9.56	3	5	5	0	2 .	2, 29	0.19	1-20	0.12	1.03	0.05	7457	0.99	H 13	0.50	2.21	4.19	7.07	0.52	7/47	0.38
0441	0	0.24	5	5	7	1	2	2.31	0.17	1.42	0,10	0.99	0.03	7.79	0.58	V-11	0.50	2151	0.23	8.01	0.75	2.02	0.36
0443	0	0.71	3	5	7	3	5	2.16	0.20	1:20	0:12	0.97	0.07	7:81	0.57	9.81	0 - 314	2.34	022	8.60	0.51	2.84	0.17
nuun	3	0.70	3	5	Ò	U	2	2.34	0,46	1.28	0.08	0.98	0.04	7 38	0.39	0.98	0,46	2,20	0.21	8.01	0.37	2,51	0.20
0007	0	0.65	14	3	78	1	T	1.97	0,22	1.745	0.13	0.97	0.07	7.92	0.31	0.11	11.72	2,63	0.41	7,21	D.M.	3/116	1 23
0448	0	0.30	3	3	3	1	23	1.30	0,53	1.50	0.52	1.07	0.05	7.39	0.00	7.38	0.19	2.53	0.20	6.37	0.59	2.59	0.38
0449	5	0.73	3	14	5	3	5	1.7	0.2	2.2	0 1	1,5	0,1	9.0	0.1	8.7	0.3	2,3	0.4	9,4	0.5	2,4	0,3
0950	U	$\theta: 71$	4	5	5	1	5	1,74	0.16	1.31	0.40	1.01	0.03	6.29	0.37	0.51	0.23	2.05	0.10	5.94	0.39	1,96	0.15
0952	11	0.72	16	5	5	41	5	1.85	0,13	1.43	0.09	1 0 1	07.05	6.81	0.24	6 32	0.33	21.84	0.15	6.18	0.33	2.29	0.24
0956	ij	0.05	3	3	3.	0	7	1.75	0.13	1,33	11.0	0.9.1	0.05	7.35	0.32	9.01	0.38	2,25	0.54	7.63	0.78	2.60	0.33
0457	Ü	0.83	4	4	5	U	3	2.08	0.09	1.12	0.09	0.97	0.05	7.05	0.32	34,40	0.93	2,14	0,13	7.14	0.48	2.64	0.32

				/		Flower		Leaf	/	SPE	A CONTRACTOR	Compatibility	and resistance	
	,	/	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2/5	de la constitución de la constit	(E)	/	. /	/	nytoohthora s	and la	//	///	/ /
,	1	Sion P	100		1 / in 1	and I	To de	and the state of t	Referen	ices hors	References / References	References Red	References (15 timb)	References Notes
13	1	DO HO	Still Sel	100	State Sala	and the state of t	1	****	/	myropho!	Adminoral References References	References Applied orest	References / hippingsto	
18397	7	7	9A2	0	29B5	708	-	71	18		101	1 */	101	GOUD CUMBINING ABIL
10900	3	3	10A2	0	2905	605								COOL CONDINING ADIL
10401	7	73	8A3	0	2010	7.08	0	41.45	1250	43	U 143	SECTION S	7-8 7 43 41	GUOTE TOWNSHIELD APIL
10407	18	0	90%	0	301/5	454								AUTO OSTONIALION METE
100415	0	3	11A3	0	29A4	507	0	40						
1041/	0	0	10A3	0	30A4	708								
10918	0	8	9A4	-11	3005	707		BUS	1	Paris .	STREET, STREET	BETTE HE	FRE WEST SE	The state of the s
10419	0	0	1044	0	3084	807	19	41,42/43	13	113			1 42 4	LOW COMMINING ABILL
10420	3	0	11A3	3	30B4	7E7			5	43			143	
10421	3	0	10A3	0	30C4	507								
10422	0	0	11A2	n.	30C4	608	100	5000	1	200	SUPPLIED OF THE	E 30 1916		9999
10435	0,	0	TIAT	3	3084	404								
10436	0	0	11A3	0	30B5	784								
10437	3	0	9A3	0	3006	407								
10438	0	U	10A3	0	3004	407		15.50		361	THE RESERVE	213 VF	APPENDED TO	
10441	0	0	1144	0	30A4	707								
10443	0	0	10A3	0	30A3	607								
10444	0	0	11A3	0	30A3	1008								
10447	7	7	944	0	2905	707	88	-	36	200	100	35 17 19		3 3 3 3 3 3
10440	3	7	1185	0	3004	ana								
10447	7	0	9A5	7	30B5	908								
10450	7	0	1044	0	30B4	6117								
10452	7	0	9A2	0	3005	6D7		1		THE S	THE PERSON NAMED IN	1	200	23.53
10456	3	7	1044	3	3004	9119		194						
10457	3	0	10A4	3	3004	9E7	+	22,44						

		1				TOTAL PROPERTY.	General			Alexander and a second	HOLD -
THE STATE OF	1000	and and	The state of the s	Accession no	ame Synonyms	/ cou	intry Politi subdivisi of origin		pin /	Name of collecting source	La Salar
0458	C	67	10	S.C-6		COLOMBIA	VALLE	PALMIRA			
04.64	G	27	11	SCA-6	EET-11	ECUADOR			2	HACIENDA SCAVINA	
0965	B	B	B	SCA-9	EET-109	ECUADOR			2	HACIENDA SCAVINA	
0468	B	44	14	SEA-12	EE7-110	FEUADUR	U-STREET,	The state of the s	2	HACTENDA SCAVENA	Bank
0967	В	14	11	SCR-4		COSTA RICA		SAN CRISTOBAL			
0458	C	79	12	SCR-5		COSTA RICA		SAN CRISTOBAL			
0469	A	3	-5	sgu-All		GUATEMALA					. 2
0471	A	1	11	S60-A		GUATEHALA					29
0472	A	2	7	SGU-4		GUATEMALA					
0473	Á	4	12	SGU-69		GUATEMALA					2
10474	H	1	13	900-71	-S 0071	GUATTHALO			9		2
10975	0	10.	15	500-662	s numo	BUATEHALA					2
0477	Α	7	9			COSTA PICA	CAR1AUO	TURRIALDA	.5	CATIL	2
0478	G	18	15	STAL8	STAL,008	BRASIL.	BAHLA	SUR OF BAHTA	2		
04.75	B	18	-81	5 FAL-4.2	1	BRABIL	Dai(ta	OR DE PORTO	3	93939	
0940	B	17	6	\$16L-95		BRASIN -	DARLA	THE BE WATEN			
10431	Н	18	10	SIAL-56		BRASIL	AHIAL	SUR DE BALLIA	2		
10482	Н	36	Ιţ	SIAL 70		BRASIL	BALLIA	TIABUMA - JUCARI	2	HACIENIA MARINIDA	
19403	B	54	114	SIAL-93		DRAWIL	10/001 n	France - apaint	2	HALTENUA MORTHEDA	
1.0924	+	37	10	BIAL-163			MAHIA	SHE DE BANDA			
1.0486	Н	38	Ó	S1AL-325		BRAUIL	BAHTA	RULRAREMA	2'	HACILNDA BAMIIN	
16487	B	47	14	S16L~407		BRASIL	BAHTA	SUR DE BOHTA	2		
10408	19	1	- 12.	870-1	3 1 5 1 3	URABIL	DANLA	ONUELICA	- 3	ESTAC. EXP. UNUGUCA	100
0489	P	2	2	5/1-1		MRASIL	060176	ORUCULA		estac, Exp. URBERGA	
. 049.0	B	55	9	S1C - 2		BRASIL	RAHTā	URUCUCA	3	ESTAC. EXP. URUCULA	

WITH THE PARTY OF	/		General			1	Pr	oduction	-	/	117				Seed			. 3	
13	/		1	1	/		1	11	1		1	,	/	/	-	18	\$/8	1	
Alle and the state of		,	A description	of State of		1	1	131	Wet se	ad	1000	seed ,	/ A. 1. 18.	Numb	ner of	18 30		Sour	length
/4/	Pedigree	/	38 / 3	A SEE /	de /	riget /		11/2/	weight in		weight	in g	Sed State	seeds per		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		in n	
721	/	79	1 4 1	410	19	1	A 4 4	mean	/ CV	mean	/ cv	1 4	mean	CV	/ Page	To Bare	mean	/cv	1000
0458		1980	07	41.0	1.35	7	50	2,16	09.0	1.35	11.3	0.63	33.0	23.0	0.66	0.049	24.8	05.2	0.56
09-54		1980	10	32,9	. 75	2	56	1.19	08.9	75	10.8	0.53	40.3	29.0	0.72	0.086	20.2	05.4	0.50
8465		1979	02	34.11	:99		27	1,44	1617	99	06.1	0.69	39.5	32.2	0.56	0.065		0.9 7	0.50
0466	11	1979	04	44 0	- 59	3	ST	1.03	11.4	59	10.0	0.57	38.3	31.3	0.75	0.081	21.5	07 5	0.49
0467	1	1979	0.3	15.9	2.16	7	38	3.38	10.7	2.16	11.7	0.54	29.1	21,3	0,77	0.034	29.5	05.9	0.59
86401		1980	0.7	21.7	1.25	5	45	1.85	19.8	1,25	17.5	0.68	36.7	18.0	0.82	0.045	26.5	09.0	0.50
D469 MATINA X	CRIDLED :	1786	05		1.31		44	1.05	36-19	1.31	19.11	17.0	34 3		0.70	0.048	29.7		0.57
0471 HATINA X	CRIOLLO A	1-7HO	95	75,3	1-06	7	19.10	1/87	0350	1-08	05-0	0.45	36.4	15.7	10:100	0.075	2310	03 4	0.49
8472 MATINA X	CRIOLLO 1	1980	04	35.6	1,31	3	47	2,32	18.7	1,31	10.0	0.56	36.7	21.0	0.70	0.056	24-5	05.7	0.51
MATINA X	CRIOLLO	1980	U5	27.9	1.02	8	4.3	1.73	12.0	1,02	15.3	0.59	35.1	16.2	0.82	0.110	22.7	04.8	0.58
0474 MATINA X	CRIOLLO !	1434	02	34.0	109	5	1171	1139	M2. F		05.2	0.64	3219	73.7	0.75	0 001	24.7	05,1	0 46
0475 MATINA X I	CRIULLO 1	14/8	07	24 8	1 14	7	9.94	1.81	14.4	1.16	10.7	B - 6/4	34 7	17.9	0179	0 003	24-4	05.3	0:53
MATINA X	CRIOLLO 1	1980	0.7	,20.6	1,41	1	42	2.31	08-, U	1.41	117.9	$0\cdot c\cdot 1$	34,3	12.5	0.82	0.057	25.0	04.8	0.56
10470	1	1978	07	32.6	.87	6.	47.	1.43	05.9	. 87	05.7	0.61	35.1	23.8	0.75	0.076	21.9	06.4	0.53
047.9	11-11-12	1979	0.2	26.0	112	5	44	1,61	06.4	1.31	00.4	0.65	30 7	26.00	0.73	0.061	24.3	05.2	0.52
0480		1979	02	25/6	7.10		47-	1.85	16.8"	1.16	10.7	0.85	30 .0 -	77.9	0.72	0.055	25.3	07.2	0.49
16461		1979	0.7	19.5	1.38		46	2.17	13.0	1.58	19 (4	0.63	37.1	19.5	0.01	0.055	24.7	08.9	0.53
0482		1979	10	25.3	1.07	9	49	1.65	081.9	1.07	10.8	065	37.0	18.7	0.76	0.077	23.2	07.3	0.54
0983	7172 198	1979	10.1	30,8	-90	7	45	1 49	13/8	90	10.9	0.66	33.1	25,9	0.74	0.058	23.0	06.3	0.50
0484		1979	10	294.3	1.07	X.	510	1.51	11.0	1.07	10.2	0.70	38.6	20.4	0.72	0.073	23.0	05.1	0.54
0486		1979	0.0	29.8	78	3	9.8	1.03	11:5	.98	11.5	0.67	35.0	23.4	0.73	0.077	23.8	06.5	0,47
0487	-	1979	1.0	22.6	1.32	70	6,0	2.07	060.0	1.32	06.2	0.20	33.5	30.0	0.87	0.070	26:1	05.4	0.51
0430	1 3	1979	02-	31/9	79	16	47.0	1,99	1200	035	10.7	0.61	39 0	1212	0.05	0.095	2.7.7	05/4	0.47
(0)84	1 3	1979	0.14	31.7	.81		50	1.0	10.9	:31	17.5	0.67	37.1	36.2	0.72	0.079	23.6	00.6	0.97
0470	1	1979	02	30.7	37.0	Œ,	90	0.30	10.1	and-	14.2	0.74	35.7	21.16	0.78	0.084	23,5	05.1	0.48

3	1		1	300 K		ici	S	eed	2100	118	126	1						F	uit		11 - 3	Contract of the last		100	400
/	mean mean	s s	eed width	Se	ed th	nickne	83/	100	Cotyle	don colo	_	ruit len in mm	gth /	Fruit wid	th paid paid	de de mes	C ATT F	ruit weigh	thi	Fruit wall ckness at in mm	/ thi	Fruit wa ckness at in mm	"/	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	And
135	mean	/cv	mea	n/ct	1/	100		(S.)	1 2 / 3 B	mean	-	1/1	ean C	V/ a	5 / 28 E	Me me	an / CV	mea	n/cv	mean	/ cv	1/2	1		Store Store
10950	13.8	05.1	09.8	10.2	+	0	1	0	4	193	14.0	090	08.9		0.51	674	28.3	13.6	11.8	08.2	13.4	29B3	8	7	.5
10454	10.2	03.9	07.9	06.3	0	0	+	0	0	180	10.6	0.74	06.5	0.41	0.45	470	21.7	11.1	10.8	06.6	12.1	2907	0	0	0
10965	12.4	04,0	08.3	09.6	0	-0	11.	-	0	1,43	09.2	083	07.2	0.51		443	23.7	11.8	117.6	07.6	11.8	2906	0	0	0
10036	10.8	05.5	0714	11.6	0	0	-n		0	14	11.1	nea	10,11	0.40	0.43	477	25.4	11.8	19.0	8.40	17.6	2910	b	0	0
10467	17.3	06.0	11.0	08.1	0	0	1	0	0	182	11.0	103	06.4	0.57		850	22,4	14.7	10.9	10.8	14.4	29B2	3	0	0
10466	13.3	07.5	08.4	08.3	ij.	0	0	+	-(0	198	12.9	091	10.8	0.45	0.47	813	30.5	14.9	12.7	14.9	16.5	2904	0	Ū	0
10984	19.1	08.5	10.0	119.3	-0.	- 93	1	4		-10	1.5.1	((88	1.0 (3)	0.92		7211	30.2	14,0	16.2	08.6	15.1	2983	0.	Ų.	0
111471	11.5	011-6	07-7	00.5	0	.0		0	0	105	0.4.0	0 (19	05.0	0.54	0.57	480	19.2	1000	1317	Onile	15:4	2005	0	0	0
1.0472	12.4	5.6	9.6	7.3	0	0	+	0	f.	219	13.4	94	6.8	0,38	0,48	656	19.7	10.3	12.0	6.4	17.2	29C4	3	3	Ó
10473	13.2	04.5	1.80	00.2	0	0.	9	0.	.0	145	06,2	0.75	05.3	0.52	1,52	331	16.9	08.2	12.2	05.1	13,7	29E8	Ū	0	0
1119.74	11.5	04.2	06.5	00.00	-0	-11	0	7.	10	113	07.0	1187	09.5	0.73		405	10.0	99/4	10.0	00 B	15:4	2VB3	10	0	U
0.0475	13.0	0.4.1	00.7	05 4	0	0	1	0	0.	174	09.5	1184	NO .X	0.99		:53	20.0	13.0	10.0	2079	12/5	3002	0.	0	-0
1.097.7	14.0	05.7	10.1	09.9	+	0	¥	1	+	191	11-6	084	09.5	0.44	0.50	601	24.0	12.5	12.0	08.2	13.4	2904	8	5	5
10970	11.7	07.3			0	0	0	Y	Ō	143	00.7	0.77	09.2	0.54		362	25.1	08.6	08.6	06.3	07.6	30E6	0	0	0
109.79	12.6	00-7	08.5	118 0	0	-11	-11	16	11	137	12-0	11.51	08-2	9-06		254	20, 2	12/5	10.5	09,1	111.3	2084	0	0	0
10490	1250	05.1	08.5	07.7	-0	0	*	0	0	184	12,0	093	07-0	0.57	0.24	672	24.5	11.7	12,1	07.6	49.0	2919	0	-0	0
18481	13.1	07.6	09.3	10.7	0	()	Ü	ł	0	178	14.8	093	10.7	0.53	0.54	673	32.9	12.7	14.2	07.9	11.4	3084	3	0	0
10082	12,5	06.4	07.8	11.5	0	0	0	ŧ	0	148	12.2	0.98	09.4	0.65	0.50	181	33.5	10.9	18.3	06.8	16,2	2905	0	0	Ð
10403	11.11	04.2	018.1	11.1	0	11	*	U	0	132	10-2	891	11-0	4.69		404	20,2	10.1	15.6	06.7	12,4	2903	0.	-0	0
10404	1210	114 B	07.7	09.3	-11	0	0		0	152	1816	0.90	07.4	0.50	9.52	5,02	2018	09:5	11.8	16.6	14.6	3004	0	R	0
16486	11.2	04.8	07.8	11.9	0	0	0	+	0	140	10.2	085	06.0	0.59		452	24.5	10.0	11.9	06.9	14.6	29D7	0	0	0
10987	13.4	05.1	08.3	04.3	Ü	Ð	0	+	0	126	08.9	095	10.3	0.75		482	19.3	09.2	10.2	06,3	13.7	29B3	0	0	0
14488	11-1	114.7	00.6	07,5	0	0-	20	U	0	122	08.0	086	06.9	0.70		4114	20.1	09.4	11,1	86.7	13.4	2VR3	0	0	0
10400	11.0	03.3	07.0	05.5	11	-0	0.	*	W	128	05.4	1191	08:4	0.71	11.54	578	1710	10.2	12.5	07.4	13.5	2903	0	0	0 -
3.0496	11.2	03.6	07.4	06.3	0	0	0	+	0	131	11,2	087	08.0	0,66		423	22.9	09.8	17.3	07.0	17.1	28B3	0	0	0

ME		B		/	T			Fruit		1	/			1					Flower			1			
/	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				See Se	1		le length	/		y lengt	h /	Ovary wid	th /	Staminode length in mm	/	sepal lengtl	/	Sepal width		gule length	Ligati width
138	13	20/03	1/2	1	37/4	200		me		CV	mas	n/ 0	V	mean	/0	mea	n / CI	mea	n/ev	mean	1/01	mean	/ cv	mean	/cv/
04500	4.	0.68	4	3	6	2	5	2,0)4 (0.07	1,13	н. 14)	Va.	0.05	7.55	0 44	43 (50)	0-01	2.25	0.27	7.43	0.57	2,90	0.26
014614	0	0.81	5	3	5	0	7	2.3	33 (18	1.54	0.05	1	.03	0.05	7,86	0.30	8.75	((, 2,1)	2.50	0.26	7.45	0.53	2,57	0.25
0465	D.	0.70	3	3	5	3	77	2.3	39 (1.13	1.33	0.10	1	1) E	0.03	5.0%	10,40	7.56	0 49	2 56	0 50	5 674	H-25	2:30	0-20"
0466	0	0.70	5	5	5	1	9	214	17 1	1.19	1795	0.10	2 1	107	0.109	7.58	11.00		D -= 0		N/EB		0.50		
7640	0	0,84	2	3	5	Ó	5	2.3	36 (1.10	1.36	0 - 12	2 0	.99	0.04	8 52	0.50	2,94	0.34%	_ 35	0.29	8.73	0.79	2.95	0.25
0988	0	0.81	4	2	14	1	7	1.8	34 (1.33	1.29	0,05	0	.99	0.09	7,47	0,48	81 , 1/ F	(r , l) *	2.15	0.19	7.97	0.60	2.33	0.33
0469	B	0.72	3	3	7	4	5	2.5	19	1.12	2.40	0.50	1	0.00	0.19	8.21	0 20	9.00	0.50	> 56	0. 29	8 16	0.46	- 115	
0471	n	0.87	2	2	3	2		110	355	19	27/12	0.00		,00	0.03	7.53	0.33		8 59		6.24	0.33	0.29	Y. 60	0.13
0472	0	0.77	2	6	6	5	7	2,1	16 (1.15	1.34	0.08	3 1	. 0 0	0.01	7.41	0.53	8.97	0.51	2.29	0.27	7-38	0.40	2.09	0.22
0473	0	0.59	2	5	3	6	7	1.0	59 (0.07	1,50	0.08	3 0	,98	0.08	7.66	0.30	8.29	0.43	2.25	0.23	6.96	0.30	1.93	0.09
0474	0	0.08	2	0	2	11	7	2 4	17 (1.14	1 39	0.13	5 [U	0.07	7.31	0 30	0.27	0.40	2.22	0.28	7-07	0 02	2 12	E 20
0475	0	0.81	T.	3	3	0	20	2.5	0 1	1.11	1,34	0.00		198	0.05	7 20.	0.28		0.21	2.00	0.13	0.36	0.9%	2.29	
0477	2	0,81	2	5	7	2	7	2.2	26 (.10	1.30	0.,10	- 11	.91	0.06	7.10	0.65	8 18	0.55	7,28	0.30	7.51	0,47	2,37	0.37
0970	0	0.82	3	2	3	1	3	1.9	1 (.11	1.44	0 - 16	. ()	, V8	0.07	01	0.00	7-96-1	0.750	5.23	0.19	7.31	0.51	1.86	0.40
0479	Ü	0 78	4	2	2	11	5	211	18 (-15	1 35	0000	1 1	0.5	11.03	8 15	0_40	V.28	0 51	3.30	0.2%	* 118	0.50	20	0.14
01130	0	0.91	2	2	5	1	7	200	1 (.23	1.96	0.0		.99	0.03	1.26	0 13		0.29(0)	1-3.09	0.53	0.113	0.87	2,32	0-13
0431	0	0.86	4	3	- 5	1	7	2.0	16 1	0.07	1.52	0 4 0	0 ()	.96	0.05	7 28	0.52	81.23	0 - 23	2157	0.25	7.95	0.97	2.59	0.19
2040	0	0,91	1	0	1	1	7	3.1	(x2	1 . B	0,2	Î	. 1	$0\ \mathrm{o.L}$	Ft _ I	0.4	81.7	0.4	2.1	11:2	7.4	0.9	2.3	0.2
0483	10	0,90	2	2	3	10	3	27	16 1	.10	1:47	0.11	- 1	03	0.05	7-80	0.350	11 99	0.43	9,12	0.25	7 19	11_99	1/13	025
0484	0	0.87	2	2	5	3	7	2.4	1 4	. 3	1.8	0.2	1	.0	0.1		0.4	0.77	41.16	-12	0.4	2.5	938	2.78	11.3
04D6	D	0.85	2	2	5	3	7	2.1	5 (-14	1.44	0.08	g U	-92	0.08	4.94	0.49	8.95	0.53	2.35	0.21	6.85	0.55	1.91	0.21
0497	0	0.83	3	3	1	0	5	27.5	52 (020	1,45	n. us	1	:01	0.03	7.72	0.48	8.65	0.59	- 2 37	(1), 25	7.00	0 , 74	2,42	0.26
0488	0	0,88	77	2	1	0	7	2.7	19 (122	1,40	0.08	1	. 0	1)	6 65	0 74	0.55	0.40	2,39	0.25	7 03	0 38	2 27	0-16
11489	0	0.97	2	2	1	0.	7	2.4	7 1	112	1.40	BERE	1	.05	0.00	7.20	0.09	R. 65	0.90		0.32	7.13	0.54	2116	0.21
0970	0	0 98	2	2	3	1	5	2, 1	17 0	.11	1.42	0.00	.)	.02	0.04	7.02	0.04	9.15	11. 50	2-35	0.20	7.89	0.52	2.21	0.19

			12.50	1		lower		Lost	/	- Au- 13	GIV.	S.C. Ba	Compati	bility and	resistance		/
158 B	1	ST. R. S.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2/20/20	\$ / \$ \$ \$ \$ \$ \$ \$ \$ \$	ST S	The state of		Reference	m / a de le la	eterence	n / A Re	ferences /	(aller)	References		References Notes
	0		11A4	3	3004	908	1	22,44	10	/	10	/	1 11/	O. Park	10	/	
			10A3	0	29B5	807		41,42	R	36,37,41	R	37,41					GOOD COMBINING ABI
	-	-	9A2	0	30B4	707	100	-			1000	Name and Address of the Owner, where	NESSE:	1000	1000	-	NA-419 DR SC-1199
			10A3			405	0	91,92,93	7 -4	1.43	I-K	1,57,36	9 4			43	GOOD COMPINING AR
10057			10A3	0	3004	705	_										
10468	3	3	12A2	0	29E7	807											
10959	U.	0.	9A3	0	31005	NE7	20	199		710-11	100	25000	STOR	TENT	A TEL	PURE	THE PERSON NAMED IN
18471	3	0	1 IAu	3	3484	704											
10472	0	3	9A4	3	30D5	706											
10473	3	7	9A4	3	30B4	707											MAYBE SGU-63
10474	4	0	9A2	0	3005	904		Total S		ALE ST	70	To make	753	123	656	514	1
10475	U	Ð	11A5	0	29B4	nus	3	. P.									
10477	0	0	10A4	0	3005	4h7											
10470	7	0	1144	3	29B5	808											
10479	3	3	10A2	0	30A3	465											
10488	3	3	10A2	n	30A4	704						-	SEC				
10481	3	3	11A4	3	30B4	8117											
10492	3	3	10A4	0	2984	707	+	41,42									
10483	3	3	9A2	0	30B4	ana											
10484	3	3	9A3	3	3005	DDB	1	41.4		Parent.	1		-	363	-		
10486	7	3	9A3	0	30C4	807	+	41,47									
10487	3	3	10A3	0	3004	705	+	43	5	43.							
10488	7	3	1004	0	3004	SUS	-	22							0		
Contract of the last		_	944	_		atti		1000		Secretary.	Series	at all	1-2	-128		1	
10490	3	3	10A3	0	3004	504											

·		

					STATE STATE OF		General	THE CHARLES	13-11	CONTRACTOR OF STREET	PARTIES.
TUP	The state of the s	and and	dille / To	Accessio	n name Synony	of original	nury sub	Political division Locality of or	rigin /c	Name of collecting source	To a series
10491	В	62	12	SIC-6		BRASIL	Ванта	URUCUCA	.3	ESTAC, EXP. URUCUCA	
0492	В	4	8	SIC-7		BRASIL	BAHIA	URUCUCA	3.	ESTAC. EXP. URUCUCA	
((493	F	3	2	810-58	Harty of the	0.607.0	BAILIN	Malcuca	198	ESTAG. EXP. URDEUEA	1000
0.4-50	61	4.0	4	S16-256		BRASIL	DANTA	Translat		INSTITUTE OF CHEAD	1
0495	G	29	5	SIC-329		BRASIL	BAHIA	ITABUNA	3.	INSTITUTO DE CACAO	1
0.096	Н	41	8	SIC-433		BRASIL	ванта	1 TABUNA	3	INSTITUTO DE CACAO	7
0497	H	43	- 8	SIC-807		BRASIL	BARTA	LIMITAGE	3	ESTAC EXP. IMUGUSA	T
0490	-8-	28	6	SIC-886		BRABIL		0000000		THE THE PRODUCT	
0475	G	30	13	SIC-813		BRASIL	ВАНТА	URUCUCA	3	ESTAC, EXP. URUCUCA	2
0504	н	22	14	SNK-12		LAMERUN			3	ESTACION N'KAEMVONE	
0506	B	23	9	SPA-S	ALTER THE .	- COLOHDIA	VALUE	PARTER	1000	THE RESERVE TO SERVE	11111
0507	Et.	24	12	SPA-7		COLORDIA	VALLE	PAUNTIO			
0500	В	25	13	SPA-9		COLOMBIA	VALLE	PALMIRA		that we will see the second	
0509	В	21	10	SPA-10		COLOMBIA	VALLE	PALMIRA			
0510	B	19	11	SP0-11		THEOMOTO	VALLE	PANH(Us	- 27		085053
0511	B	20	. 11	SPA-12		COLOMULA	VALLE	17ncarino			
0512	C.	73	13	SPA-17	PA 17	COLOMBIA	VALLE	PALMIRA			
0517	14	66	7	T.J1		HONDURAS	TAULICA				
0524	C	77	11	TSAN-792	TSH-792	101010AH	PAGE 1	The state of the later	200	The State of the Local Division in the Local	-
0525	W	67	7-	75H-565		DIMINAN.		RIVER EGIVER		TOTERIAL COLLEGE	2
0526	C	76	9	TSH-565		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	2
0527	В	36	9	TSHA-644	TS HA-644	IRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	2
0532	B	37	ID	()(-)(CONTRACTOR	COSTA RICA	LINUN	ZENT	2	UNITED TRUIT CO.	- 1
11533	D	22	9	OE-TO		COSTA PICA	Lincol	7EB1.		UNITED TRUET CO.	
0534	D	23	7	UF-11		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.	

1000	/	(O)	General			/	Pr	oduction		/					Seed				
	13/		/	/	1		/	//	/		/		/	/		13	1 1/3	4 /	1
/	gelian allered	1	S SECTION S	S. S	/_	/	12	(0.3)	Wat se	ed	Dry	seed	15 18	Num	ber of	1000	10 To	Sood	length /
1 4.0	Pedigree	/ .	38/3	S B A LINE	1 /	P. P. Sept.		\$ °	weight in	-	weight	7	35/_	seeds per	10	and Alatio	and the state of		mm / B SE
						19	1 8	mean	0	mean	/		s mean	/	1			1	1.36
10457		1979	01	30.0	.91		51	1,43		.91						0,066		06.1	
440477		1979	_	37.3	.81	_	46	1.28	08.8	.81	-	0.63	_	-	_	0.080	22.8	05.9	0.48
100.77		1979						1.35							5 Y	0.043			
LUMBE -	8(0	1070	_	27.9			11-3	1,52	08-8	197		11.64	3519	-	-	0.085	-	94 Y	
100-32		1979		28,5			49		05,1	.96		0.63				0.082			0.52
10976	Total Administration of the Control	1979	_	_	1,13	-				1.13		1000				0.076		05.6	-
							25	1.42	10.7	199		0.44		17.6	0.H1	0.087	21.5		9,34
	EATOMGU.	1979		2200	1-19			-	(4.12	00000					0.00	0.059		-	-
200	(30)14MU(I	1444			1,16			1.85		1,16		0.63				0.069	24.0		0.53
10000	-	1979	-		1165	-	-	-			-		_	-		0.029	-	_	
		12/4		23.4					15.5							0.038	25.3		0153
					1-24				08-5						-1200	0 036		700	
		Talka.		35 (2	93		48	1.28	10.9	73		0.73	30,4			0,057	22,4	03,1	
14298		181			1.02	_	56				-					0.062			
32010		10.79			7 02			: 51	T. of							0.050		03.8	
18011					1,29			1 92	COLUMN II					T-1	200 200	0 043		NA 2	-
				19.0	. 13.5	50	435	1 . 2 . 1	0.85	-113		0.68		31.0				04.6	
		13210		8071	197		45	1.67	22 8	97	25.3	0.58	32-3	23.2	0 - 72	0.053	25.0	10.8	0.48
		19110		12.7	1.01	0	67	1.57								0.077			
	Shad 1866	IAM.		1801	1,1	16	23	1.72	35-1	1.4	21 2	11-75%	40-L	25.2	11-77	0.078	25-1	951,8	11.48
1,000.00		1.75700	1.1	20.0	1.16		11	1.98	10.7	1-1-5	14 14	0.80	97.5	200	0.311	0.05.9	25	04,7	0.49
19527			W.C.		1 11		50	1 7	17 (1	1, 17	12:0	0.65	32.7	21.3	0.157	0.059	22.5	06.3	0.51
		1978	0-6	22.7	1.19	7	50	2.19	07.3	1,19	10.7	0.54	27.2	29.0	0.74	0.05B	54.4	0%-B	0.53
1.0533		1978	06	24,3	2,12	0	45	3736	13.6	2,12	12.9	0.763	33.11	31.3	11-73	0.042	30.0	07.6	0.55
10534		1778		13.6	2.23	7	16.7	3.33	17.3	7.23	15.9	0.67	33.1	0.3.0	0.70	0.045	30.0	06.3	0.60

1000			/	15		23	Se	ed				1		17 15	FER	100	1711	Fr	uit	Field	100	9 4			STATE OF THE PARTY OF
	mean mean	\$/	i i	/				1	Cotyled		_		. /	/	th Jakes	ANTE / S	0 Kg/		1	Fruit wall	/	Fruit wal	1	/	** ** ** ** ** ** ** ** ** ** ** ** **
/	Sign of	50	ed width n mm	-	in ma		//	(all	2/30/	and a second	/	in mm		Fruit wid	IT Laide	Sale die	1	in g	/ une	kness at	furrow	kness at	Trutt 9	Trans	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
138	mean	/cv	mean	/ cv	/3	20/				mean	10	v /m	ean / C	V/a	Ser Capital	Marie Jan	n/cv	mean	/cv	mean	/cv	1	100/0	E/2	
10001	11.1	03.2	07.8	06.9	U	0	0.	+	0	153	10.8	0.91	08.			554	27.7	11.8	12.8	07.5	18.1	3004	():	0	0
18492	11.0	04.1	07.6	06.9	0	0	0	÷	Ü	135	10,3	5 087	60	0.64		417	29,9	10.5	14.6	05.9	13.8	2883	Ď	10	0
10493	15.6	06.4	11.3	- 00,0	-51	0	10	0	U	199	10 3	1.00	0.00	0.50	000	-616	492	15.0	10.1	-48.0	14 1	3963	-	-0	200
10494	11.9	05.4	07,1	09.9	0	0	0	6		3.9.0	10		1.5	0,31	0.25	431			0.0		17-5	1797			0
10475	12,3	04,9	07.9	10.6	0-	0	0	+	0.	137	09 7	0.0	00.0	0.63	0.53	945	23,7	97.8	12.2	06.6	15.2	3004	D	0	0
10495	12.4	05.4	07.8	06.4	0	0	ū	4	Ű.	152	09.	09.	07.5	0.01	u.50	525	28,5	10.1	1472	06.3	15.8	29B3	0	0	Ü
10997	12.6	05,4	97.5	107.2	-	0	*	4	0	17/2	11.5	y pus	· Stice	0.250		1888			10-5		10-16	291,9	-0		0
18490	12.0	03.8	08.7	02.7		U			0-	130	0.131	1 091	-08.3	0.00			- 19 5			000.0	11-1	1083		0.	0
18499	12.6	05.2	07.8	11.6	+	Ū	0	+	0	138	10.1	089	16.0	0.69		495	25.4	10.7	13.0	08.0	17.2	29B3	0	0	0
10504	13.8	04,4	09.6	10.6	0	-()	0	+	0	210	13:1	100	09.7	0,50	0.51	1806	32.2	15.6	14.8	08.9	19.8	3008	Ų.	9	7
10506	13.3	04.7	3.0 , 9	08:7	9	U	4	Ü	-0	202	10.0	0.93	11	0.45		858	33.7	15/11	15.0	10,4	10.5	5000	0.		11
10507	12.3	05.9	08,8	00.0	0.	0	+	8	0	212	14.0	1.01	05.7	0.51		1171	22 1	18.1	10.43	12/1	12.4	0.0 Dec	0	n.	0
10508	12.0	03.3	08.0	08.7	0	0	0	+	0	158	13.9	084	08.3	0.53		533	30.6	11.7	09.4	07.8	07.7	29EB	0	0	0
10509	11.9	06.8	08.3	10.3	0	0	0	+	0	1.74	12.2	2 091	09.4	0.53		640	27.3	11.4	11.7	07.2	15.9	2903	0	0	0
10510	12.0	04.2	07,8	0.6 , 0	0.	-11	0	4	0	185	11.1	0.54	00.0	0.153		752	25/9	15.2	09.7	08.5	11/5	70003			0
10511	12.2	04:3	08.8	0.51-47	0	0	ij.	7	0	210	10:8	1 100	011	0 51		1005	29.4	THE P	10.3	10.0	12:4	2005	0	0	0
10512	12.0	04.2	07.7	06.5	0	0	0	+	0	154	08.4	088	05,8	0.52	0.43	536	19.3	11.6	09.5	07.7	13.0	29E7	0	0	Û
10517	12.0	6.7	8.1	17.3	+	0	+	0	+	164	30.3	88	11.5	0.54	0.54	608	25.0	12.2	30.3	87.6	11.5	2918	0	0	0
10524	12.4	05.6	07.0	11.5	0	0	-	- (1	0	170	19.5	11.01	07-3	6,97	0,40	550	20 -6	1.1.3	16-0	116,4	10.7	2904	7	8	4
10525	11.6	06.0	08/0	11.4	0	U	1	W	0	217	10.1	001	07.3	9.78	6.52	6,18	24-7	17.3	11.0	08,1	18.5	30E&	9.	+	3
10528	12.3	03.3	09.0	06.7	0	0	+		+	217	09.8	088	08.1	0.40	0.48	704	26.7	13.9	18.0	06.5	16.9	2905	9	9	7
10527	11.4	03.8	08.4	09.6	0	0	0	+	0	175	11.8	081	07.1	0.46		476	29.4	12.7	12,9	06.9	17.7	29E5	0	0	0
10532	13.3	06.0	09.2	13.0	0	0	+	U	0 -	164	12,2	900	0 (1)	0.59		5/11/9		15.0	09.3	00.4	20,2	2VE Y	1	-0	10
10533	10.4	07.9	114	MARI	2	0	*	1	0	189	In.V	074	11.7	0.50	2.35	792	50.7					3006	9	0	· ·
10534	16.5	04.2	11.3	0.80	+	0	+	+	0	202	13,4	094	08.5	0.47		784	31.1	16.6	09.6	11.6	10.3	3007	0	0	0

100		160	10	/		100		Fruit	-	/	100		200	Saig.		M	Flower			N FEE			
/	1	Service Services	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Til San	of the last of the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		September 1	Sty	le length	/0	vary lengt	th /c	ovary wide in mm	h /s	Staminode length in mm	/s	epal length	/	Sepal width	/	gule length in mm	Ligule width in mm
TIS.	14	20/3	8/2	8/2	3/4	3/2	\$ / N	mean	/ CV	mee	n / CV	mea	n/cv	mea	n/cv	mean	/ CV	mean	/ CV	mean	/ CV	mean	/ CV /
0491	Ü	0.97	14	5	3	1	5	2.51	0.07	1.51	0.05	1.0	0.04	7.64	0.29	8.93	0.45	2.41	0,27	7,77	0.50	2.21	0.26
0450	0	0.74	3	3	3	1	7	2,19	0.15	1.55	0.09	1.01	0.04	7,98	0.53	8.81	0.61	2.15	0.20	7.91	0,54	2.07	0.14
0493	.01	0.73	3	2	6	0	5	25 10 10	0.15	1.4.	0,00	1.03	0.07	5.50	0,51	9:05	0.50	2.58	0 20	E-77	0.45	3 (03	0-11
0494	11	88.8	3	9	3	1		2.2	n.I	1.2	0.1	1:0	0.1	5.4	0.3	6.8	0.3	1.9.	0.1	6.4	0.5	2.2	0.2
0195	0	0.83	3	0	2	0	7	2.3	0.2	1.3	0.1	1.0	0.1	8.0	0.4	8.3	0.7	2.3	0.2	7.9	0.4	2.5	0,1
0994	0	0.78	3	3	2	0	7	2,20	0.14	2.02	0.14	1.00	0.04	8.29	0.67	8.94	0.39	2.40	0.29	8.20	0.55	2.50	0.24
0497	0	0.73	2	17	3	-1	711	21.24	0:11	1.45	0.06	1.05	0.05	7-85	0.25	8.87	0.47	2.41	0.21	7.48	0.45	7175	0.75
0478	0	0.87	E	0	2	0	7	2.09	0.37	1.116	0-08	1 . 025	0.05	8.33	0.54	8,15	0.59	2.49	0,17	7.69	0.38	2.56	0.29
0479	0	0.94	2	1	2	.0	7	2,16	0.14	1,50	0.14	1.09	0.07	8.09	0.52	8.04	0.58	2,47	0.27	7.45	0.51	2.27	0.17
0504	5	0.91	2	5	i)	1	7	1.64	0.08	1.66	0.08	1.19	0.08	7.97	039	9.39	0.47	2.54	0.21	10.31	0.76	2,96	0.14
0505	0	0.79	3	5	5	U	9	2,29	0.10	1.39	0.11	0.91	0.08	7:08	0.27	81.05	0.57	2 35	0.25	7.95	0.41	2,61	0.30
0507	-0	0.92	2	5	*	1		2, 30	11.27	1,49	0-00	11.50	0.05	8:72	0.37	8-71	0.50	2.40	0.22	9,62	0.43	3/12	9,26
0508	0	0.68	3	2	14.	0	7	2,37	1,55	1.39	0,10	1.01	0.03	8.09	0.31	7.61	0.55	2.29	0,24	7.05	0.42	2.63	0.36
9.020	0	0.97	2	3	4	1	7	2,51	0 = 10	1,41	0:0.7	0.95	0.707	6.45	0.07	0.28	0.37	2.84	0.21	7.27	0.34	2.85	0.32
0510	п	0.86	5	3	13	0	-19	7.41	11.73	1.745	0.07	1.01	0.02	0.10	0.91	7.47	0.78	2,40	0.29	7.93	17.40	2,48	0.26
0511	0	0.89	2	5	3	0	3	2,39	0.10	1.44	0.09	0.97	50.0	E 90	0 1721	9.26	0:49	2,82	0.12	7.51	0.62	3,05	0.26
0512	0	0.75	5	2	3	0	7	2.3	0.0	1.,11	0.1	1 1	$0 \in \! L$	6.0	0.25	7.0	0.4	2.4	0.2	7.0	0.4	2.8	0.3
0517	0	0.90	1	1	3	2	7	2,18	017	1.99	07, 1, 1	3.02	0.04	0.43	0.43	8 - 73	0.344	2.39	0.18	7.84	0.28	2,67	0.21
0524	1	0.65	5	5	5	0	5	2.15	0.10	1-25	0.06	1.10	0.07	8.93	0 30	6.73	8 35	2.17	0:15	5,17	11.64	2,93	0.19
0525	5	0.01	5.	3	5	3	5	2,53	0.07	1.40	0,11	0.97	0.05	8.32	7,60	7.57	0.26	2,28	0,25	0.21	0.39	2,81	0.22
0526	5	0,80	5	3.	ц	3	5	7.22	0.35	1.31	0.10	1.05	0.00	7.86	0.319	8.28	1.02	2.43	0.32	7.85	0.93	2.71	0.36
0527	0	0.74	7	7	12	1	5	2.10	0.17	1.38	0.12	1.0	0,105	0.66	0.25	7 - 64	0.38	2.20	0.23	6.56	0.82	2.65	0.30
0532	-0	0.78	7	5	5	1	*	2.4	11 13	12	0-11	1.0	0.00	913	0.33	9.5	0.59	2.3	0.27	6.9	0.47	2.5	0.35
10533	0	0.75.	14	3	7	0	5	3,97	0.32	1.25	0.11	V. 78	0,04	7 73	0.59	8.46	0.41	3.26	9:22	7.77	0.70	2/49	0.45
0534	0	0.78	3	3	7	1	3	2.11	0.11	1.7	0.19	1-02	0.41	90	0.20	9.0	0.00	2.4	11.15	7.9	0.27	3.0	0.18

			53	/		ower		Leaf	/			Compatibilit	y and resistance	
138.5	1	To de la constitución de la cons	\$ 100 10	Cold Cold	A STATE OF S	died	The state of the s	3 / 15 / N	eference	adhitura painte	References Dentil	References / Joseph Market Mar	References / References	References Notes
1380	1	20/4	10 cg	1	The Supply	1 Age	10	20/	100	8/	/ Suite	1801	100	
10491	3	3	10A3	0	30A3	504								
10492	7	3	10A4	0	30C4	604								
10093	3	3	1002	0	3003	505	33		1.8	1	32.75	- 35	1235B	MACHE UI -
101194	3	0	9A3	0	30114	807								
10475	7	5	9A4	0	30D5	707	X	43	S	43				
10496	3	3	8A2	0	2904	505								
10497	7	7	962	0	30P5	7117	0.	925	1-14	1	- 11-1-		- 10 TE	OF CHANGE OF CALL
10498	3	0	142	0	3005	184			1-6	1				
10499	0	0	1A2	0	2905	107								
10504	7	0	10B6	3	30R4	8E6	+	22,43	$T\!=\!R$	1,43				
18500	7	3	142	8	30B5	508	1	200	100		882	22		
10507	3	3	182	1	2995	305								
10508	7	7	1A2	0	29B5	108	σ	41,42					T - R 1	SEEMS NOT SPA
18589	7	7	1A2	0	30A3	807								DOBIODS
10510	7	7	182	0	30C5	265	60	100	1		The same	100	200	
10511	3	3	1A2	0	2905	505								
10512	3	7	1A2	0	2905	607								
10517	0	0	1A2	0	30C5	108								
10524	3	0	YIA5	3	28E7	907	259	4.30	- U-R	-2	T-8 1	1000	35.53	3163 - 118
10525	n	0	11A4	0	3000	71/7								
10526	0	0	11A4	3	30C5	6107							100	
10527	0	3	9A2	0	29B4	504	0	42			T-R 1,41			GOOD COMBINING AB
10532	3	D.	9A3	g.	3B4	807	0	P		1	255	3233	5 3 5 5	33.30
10533	Ū	0	1002	0	30A4	867								
10534	0	0	9A2	Ü	30A5	8C7	0	13,44,7	T-R	1				

						The Real of	General	All Trible - London	HIEA	1200年1月1日
TUR	San Car	and die	Se runted	Acce	ession name Synonyms	s Cou	intry	Political subdivision Localit of origin	y of origin	Name of collecting source
0535	D	24		UF-12		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0536	D	38	14	UF-20		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0537	D	25	15	UF-29	The state of the s	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0590	14	73	7	UF=36		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0591	D	41	10	UF-93		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
11542	D	44	8	UF-122		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0593	II	26	13	UF-168		COSTA RICA	LIMON	ZEHI	2	UNITED FRUIT CO.
0546	D	96	0	117-210		COSTA FLCA	LIMON	ZENT	2	UNITED FRUIT CO.
0545	D	27	15	UF-221		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0546	B	16	9	UF=242		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0547	B	15	7	UF-273	100 10000	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0548	D	28	15	UF-296	EET-282	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0549	D	43	9	UF-296	EET-282	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0550	D	47	11	UF-601		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0551	D	48	10	UF 402	THE RESERVE	COSTA KICA	LIMUN	ZENT	2	UNITED FRUIT CO.
0554	D	29	14	UF-613	EET-4	COSTA HIGH	LIMON	ZENT	3	UNITED FRUIT CO.
0557	D	30	15	UF-650	EE(-3; 8; 297	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0550	D	31	15	UF-654	EE1-278	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0559	Li	52	11	UI 666	THE STREET	CUSTA RICA	LIMUN	ZENT	2	UNITED FRUIT CO.
0560	11	32	14	UF-667	EET-281; 313	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0542	Di	33	14	UF-668		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
11563	Н	72	8	UF-667		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0564	D	34	12	UF-672	THE REAL PROPERTY.	COSTA FILLA	LIMUN	ZENT	2	UNITED FRUIT CO.
0565	D.	35	15	UF-676	EET -280	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CD.
0566	D	36	15	DF-577	EET-9	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.

		Genera	ı			Pro	duction	/				3		Seed		-		
134	/	/	/	/		/	//	/		/		/	/		18	ide! Jab	1	
AUTH BEREICH THE THE PARTY OF T		and and the	or described		/	/2/	~ 8th	Wet se	ed	Dry	seed ,	/ A 18	Numb	per of	and	grider of special	Seed	length states
1	Pedigree /	9 884	att of Sea Fruit	ade /	Inde+	ducidad de	20/	weight in		weight	in g	Stan Market	seeds per	fruit	under st and	Til weits	in n	nm / B IN
101	1 70	3/ 10	& Star	13	10	S/ 4 11/	mean	/ cv	/ mean	/ cv	1 1	mean	/ cv	/ San to	et Septe A	mean	/ cv	/ de 3/
0535	1980	0.7	52.0	1,83	3	46	2.78	85.8	1.83	11.5	U , recr	35-, 1	21.9		0.050	28.1		0.56
0536	1980	05	21,7	1.33	5	48	2.19	09,4	1.33	11.1	0.65, 0	34 , 0	19.8	$\mathfrak{n}_{x}xz$	0.043	20-1	07.9	0,59
0537	1978	05	21,7	1.15	5.	52	1.83	12.0	1.16	09.8	11.54	39.7	28.7	0.78	0.010	35/8	05. H	0.5%
0540	1978	0.6	21/8	1.19	7	52	1.78	20.2	1.19	18.4	0.67	38.4	25.5	0.70	0.083	26-0	0/.7	0.50
0541	1978	0.6	24.2	1.31	3	40	2,11	11.4	1,30	13.1	0.62	31.9	22.7	073	0.056	25,1	08.2	0.61
0542	1980	0.6	43.3	1.64	2	46	2,57	16,6	1.64	17,5	0.64	37.9	15.3	$0.,1i^{-1}$	0.008	26.8	07.1	0.56
0543	1978	80	15.8	1.92	5	45	2,82	11.1	1.92	11.5	0.68	33.0	25,5	0.73	0.056	28.0	05,0	0.53
0544	1978	0.6	26.2	1.05	3	48	1.91	12.2	1.05	116.4	0.55	36.5	24.9	0.76	0.000	22.2	86.0	0.61
0545	1980	0.5	18.9	1.46	7	43	2.43	13.7	1,46	21,5	0.50	36.3	17.9	0.84	0.072	26.1	05.0	0.59
0546	1978	12	21.9	1.35	6	52	2.05	11.4	1.35	12,9	0,66	33.9	33,3	0.65	0.061	24.0	05.8	0.55
0547	1979	03	22.2	1.31	5	47	2.01	07.0	1.31	119.7	0.85	34.5	27:0	0.73	0.056	23.7	05.9	0.59
0549	1980	0.5	20.1	1,19	7	51	1.77	20.8	1.19	18.5	0.67	41.9	23.9	0.82	0 005	24,4	09.2	0.52
0549	1978	08	26.9	1.16	5	56	1.83	07.7	1.18	10 -3	0.69	36.5	34.5	0.65	0.078	24.1	04.1	0.54
0550	1976	0.6	13.8	1.95	8	46	3.13	11.5	1,95	12.0	0.62	37.5	19.0	0.81	0.052	29.5	06.4	0,57
0551	1980	02	19,9	1.54	4	41	2.36	04.5	1.54	04.3	0.65	32.6	20-2	0.80	0.066	25.6	03.9	0.57
0554	1980	08	20.7	1.41	3	46	2.23	14.2	1.91	17.1	0.62	34.3	22.7	0.75	01.039	26.0	05 8	0.53
0557	1978	0.6	20.0	1.99	5	41	3.31	05.8	1.29	09.7	0.60	30.7	29.0	0 : 75	0.049	28.1	03.6	0.56
0558	1978	0.6	19.6	1.85	7	41	3.09	10.3	1.85	11.9	0.60	27.5	29.5	0.67	0.050	28.8	03.8	0.55
0559	1978	07	2475	1.54	5	31	2.54	00.5	1.50	09:5	0.61	26.5	29.5	0.72	0.039	25.5	06.7	0,58
0560	1978	0.6	24.9	1.82	7	40	3.03	14.7	1.82	17.6	0.60	30,1	22.9	0.75	0.042	27.9	07.9	0.57
0562	1980	04	40.6	1.16	3	41	1.84	15.6	1.18	18.4	0.63	201.6	23.1	0.70	0.041	24.9	05.2	0.52
0563	1978	0.6	17.4	1.86	6	45	2.43	07.0	1.86	07.5	0.63	30.9	51.1	0.69	0.058	28.5	04.2	0.53
0564	1978		30.8	1.1		42	1.91	12.4	1.1		0.58	29.5	30.8		0.061	26.0	04.2	0.53
0565	1978		30.2	1.9		40	3	08.4	1.9	07.0	0.63	10.7		0.27	0.033		06:6	0.55
0566	1978		28.1	1.76	4	42	2-91	1 / 0	1.70	25.4	0.61	20.2	54.35	0.48	0.034	27.1	04.1	0.54

1000	300		/			200	S	ed	100	27-	1925	1		-	127/20	Why.		Fr	uit	100					
/	mean mean	s / Se	ed width	Se	ed thi		11/2	100/10/10		ton colo	-1.	ruit leng	gth /	Fruit wid	th Restantial	steer of mea	S. A. Fr	uit weigh in g	thie	Fruit wall		Fruit waskness at	1	The state of	Sept Sept Sept Sept Sept Sept Sept Sept
128	mean	/cv	mean	/ cv	1/3	10/0	8/	8/8	1 4 A B	mean	-	me	san / C	1/23	10 / 02 HO	mea	n/cv	mean	n/cv	mean	/cv	1 23	/	8 / A	Callet City
19535	15.6	05.8	10.5	09.5	+	0	+	÷	.0	190	12.6	093	08.6	0.49	0.49	675	31.1	13.5	14.1	09.4	20,2	3007	0	.0	0
10536	14.2	06.3	89.1	08.8	0	0	ŧ	0	0	183	07.8	108	09.2	0.59	0.52	812	25.2	17.3	14.4	08.7	19.5	2904	5	1	3
101/37	13.6	07.3	013,5	16.5	0	0	0	4	0	459	13.6	0.05	119.4	0.55	0_48	1194	34-1	11.5	08.6	06 4	17.2	3006	ij.	0	0
10540	13.7	05.0	08.7	11.5	-0	U	11:	+	0	166	1312	005	10,-1)	0.52		465	34.8	13:0	1213	07.3	13,7	2967	- 0.	U	0
10541	15.4	05.1	10.1	10.7	*	0	÷	0	0	149	13.0	034	11.5	0.56	0.60	559	38.2	14.8	09,9	09.8	11.1	30E8	8	7	5
10542	15.0	06.7	09,5	10.5	Ü	0		Ü	6	1110	11-2	0.5/1	07.1	0.51	0,99	571	36.1	12.2	10.7	07.6	12.9	3007	9	8	0
10543	15.2	32.2	10.6	12.3	1	0	3	T	0	171	15.1	089	07.7	9.52		503	50.4	13.4	06.7	00.7	17.2	3007	0	0	0
19544	13.5	08/1	09.3	10-1	0	0.	N	0	11	(2)	11.5	007	00.0	0.50	4 (52	613	24.5	15, 4	12.3	0日, 3	10.3	PPER	0	-0.	n
10545	15.4	05.8	09.0	08.9	U	0	b	U	0	178	10.7	085	07.1	0.48	0.50	505	24.4	11.3	12,4	07.0	11.4	2908	9	8	5
10540	13.2	8.60	08.9	10.1	ū	Ō	0	+	Ō.	171	14.0	085	11.6	0.51		557	35.4	12.7	16.5	07.3	21.9	2905	0	0	0
10547	13.8	05.8	09.4	08.5	-0	11	0.	X.	0	184	09.8	080	10.1	# 48	500	512	25.0	13.2	11:4	100.0	14-0	2983	-0	7	5
10548	12:8	04,7	08.5	19-1	0.	U	*	1	Ti .	168	07.0	0.00	07.0	0.33	A 57	995	22.0	11.0	ii.n		13.2	30E9	9	Ð	8
10547	13.0	04.6	09.0	13.3	0	0	+	0	0	159	17.6	082	11.0	0.52	0,58	468	40.6	12.4	13.7	00.3	14.5	2907	9	8	5
10550	16.8	06.5	11.3	03.5	0	0	+	()	U	185	15.7	089	09.0	8.0 ; 1)		723	30.6	14.0	15.7	10.4	14.4	2904	9	8	5
10551	14.0	04:1	09.8	05-1	0.	U	4	4	0	153	99.5	0.50	- Udvr	0.59	0.51	497	24.5	11.3	15.9	08-9	20,3	3004	0	0	0
1.0554	13.9	3.6	9.3	9.7	17	0.		4	0.00	-109	11-1	200	D-11	2.04	0.45	980	30.1	13.7	18.9	8.8	15.9	SBDV	8	8	8
10557	15.6	05.8	11.1	10.8		-0	4.	ě.	0	177	14.7	086	10.5	0.49		5/4	30.1	14.8	06.5	8,80	04,5	30C7	9	7	5
10558	15.6	07.1	09.8	07.1	0	0	+	0	0	149	13.6	0.03	10.8	0.49		532	26.5	12.2	06.6	08.4	07,1	3004	B	4	6
10559	19.9	1000	11.7	06.0	7	0	P.	0	D	222	13-1	0.073	09.0	0.30	1200	617	30.0	11.6	97.1	10.2	11.1	3050	0	0	0
10560	16.0	08:1	10.6	11.5	0	0		0	0	104	14.0	0.89	119.5	0.50		1923	24.1	12,2		117.3	10.0	3003	9	7	5
10562	12.9	6.2	8.4	9.5	0	0.	1	÷	+	186	10.0	94	7.1	0.50	0,47	701	20.5	12.6	10.3	8,2	11.0	29EB	9	9	7
10563	15.2	05.9	09.6	02,7	\$:	0	÷	+	0.	168	19.6	088	12.5	0.52		532	38.7	08.2	09.6	08.2	10,9	30E8	0	0	0
10569	13.8	06.5	10.5	87 (4)		-11	15	0	0-	170	1814	1185	13.00	0 40	15-5	402	23.7	14.16	16.3	14.8	03.7	3#64	9	7	0
10565	14.9	05.4	10-7	03.7	-	0	-	D	0	100	17.5	085	12.9	0,51	Sec.	320	37.7	18.0	08.0	ND.8	11.9	2906	ű	0.	0
10566	15.8	04.4	11.4	03.5		0	+	0	0	170	15.3	092	98.7	0.59		601	30.0	14.3	03.5	08.5	15,3	29E8	0	0	U

11000				1			F	uit		/						9011	Flower						
/	1	Se Contraction of the Contractio	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	distant distant	NA PORTO				St	yle length in mm	/	vary lengt	th /c	vary wid	th /	Staminode length in mm	/s	pal lengt	1/	Sepal width		gule lengt	h Ligule width in mm
13	1/4		18 /a		13/4			mean	10	V mea	n/cv	mea	/cv	mea	n/cv	mean	/ cv	mea	n/cv	mean	/ cv	mea	n/cv/
10535	0	0.71	3	3	6	1	5	2.1	0.08	1.6	0.18	1.0	0.08	8.1	0.29	8.9	0.34	2.4	0.22	7.8	0.44	3.0	0.21
10536	0	0.70	7	3	3	3	5	2.6	0.23	1.3	0.12	1.1	0.09	5.9	0.54	8.2	0.83	2.2	0.20	6.5	0.52	2.4	0.32
10537	0	0.84	5	3	3	1	7	2/27	0.08	1 37	0.10	0.95	0.07	5,56	0,37	9.03	0.55	2.00	0.18	7.27	0.50	7,73	0.25
10590	0	0.75	5	5	14	5	3	2/6	0.2	1.4	0.1	2.03	0.05	6.6	0.5	9.4	0.3	1.9	6.2	6.11	0.5		0.2
10541	0	0.76	2	3	3	1	7	2.20	0.07	1.32	0.12	0.91	0.09	6.97	0.36	9.60	0.42	2,45	0.22	7.86	0.28	2.62	0.25
10542	0	0.78	4	3	5	1	5	2.4	0.23	1.3	0.11	0.98	0.04	7.9	0.34	8.8	0.41	2.4	0.34	8.3	0.60	2.6	0.32
10543	0	0.79	4	3	6	0.	5	1.9	0.24	1.3	0.19	0.97	0.10	7.9	0.46	6.2	0.47	3.3	0.23	7.4	0.32	3.0	0.31
10544	0	0.93	5	9	5	1	7	2.0	0.06	1.4	0.09	0.92	0.05	6.5	0.30	8.1	0.31	1.7	0.14	6.B	0.49		0 - 30
10545	5	0.82	4	3	6	1	3	2.0	0.11	1,9	0.27	0.96	0.07	7.7	0.14	9.0	0.67	2.2	0,24	8.0	0.62	2.7	0.37
10546	0	0.74	5	5	4	5	7	2.70	0.35	1.37	0.09	0.96	0,07	6.89	0.53	9.02	0.38	2.47	0.23	7.44	0,52	2.60	0.22
10547	4	0.60	3	5	5	1	5	3.10	0.22	1.43	0.09	1 0	0.06	7.29	p.uu	10.15	0.32	1.94	0:07	8.51	0.58	2.75	0.27
10548	6	0.79	3	5	3	5	7	2.1	0.10	1.7	0.10	1.0	0.13	5,6	0.30	8.2	11.40	312	0.12	7.5	0.36	2,6	0.25
18549	2	0.59	3	3	3	5	7	2.5	0.2	1.4	0.1	1.0	0.1	7.0	0.3	7.9	0.4	2.3	0.2	8,2	0.3	2.4	0.2
10550	2	0.73	4	5	6	1	3	2.0	0.06	1,4	0.09	0.98	0.04	7,8	0.36	8.9	0.41	2.0	0.25	7.0	0.45	2.8	0.19
10551	0	0.66	5	5	3	5	7	1,9	0-10	1.9	0,17	1 0	0.00	7.4	0.41	8.4	11.55	2.2	0.32	7-0	0.45	2-0	0.10
10554	8	0.79	5	3	7	3	7-	2.5	0-15	1.3	11.2	1.09	0.07	7 (35	0.43	R.91	97.39	2,69	0.14	0.0	0.32	3/1	0.29
18557	5	0.86	3	.3	5	()	5	2.2	0.14	1.2	0.13	0.95	0.08	7.9	11.46	9.4	U. 75	274	0.19	8.0	0.40	3.0	0.23
10558	0	0.78	4	5	6	()	5	2.0	0.12	1., 1	0.12	1.01	0.00	7.5	0.37	9.1	0.20	2.3	0.23	7.9	0.54	2.9	0.20
10559	0	0.57	3	2	7	5	3	2.05	- 0 - 0B	1.15	0.07	0.98	0.00	7.08	0.39	0.43	0.37	2.05	0.13	7.98	0.53	2.70	0.21
10560	3	0.48	. 5	5	6	1	7.	2.2	-0.10	1.2	0.14	0.91	0107	7.0	0.31	0.7	0,40	2.8	0.31	7-3	0.555	2/3	0.29
10562	5	0.77	3	2	5	1	7	2,2	0.14	1.5	0.12	0.77	0.07	7.6	0 32)	13 . 14	0.50	2.0	0,10	7,5	0.52	3.0	0.22
10563	0	0.79	2	3	7	0	.5	2.2	0,19	1,42	0.11	1.04	0.00	1.72	0 - 53	8.89	0.44	2.47	0.35	8.49	0.50	2.97	0.25
10564	2	U.B1	u	3	7	1	3	25.16	0,14	1.47	9 09	1.0	0.00	7.91	0.41	11.98	0.52	2.40	0.17	7.43	0 58	3,55	0.28
10565	0	0.78	3	11	5	D	5	1.2	0 15	1.3	0.19	1.0	0.08	7.9	0.28	4.1	0.56	2.2	0.24	9.1	0153	217	0.30
18566	u	0:71	5	5	5	0	5	2-1	0.10	13	0.15	11.98	0 - 0 2	1.5	0.23	9 1	0.52	23	0.28	0.4	0.62	2.9	0.24

-	1			1		Flower		Leaf	/	14:08	Line.	NO BE	Compatibility an	d resistance	8	
108	-	of his	10 / 10 / 10 / 10 / 10 / 10 / 10 / 10 /	Se la constant	\$ / 18 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /	addit delet been	- Control	or Jane / R	eference	contitors pain	Reference	mipelis peri	References References	Reference	a oct dis limbral	References Notes
10535	0	0	10A2	0	3A6	807	_	13	1 B		/	/	1 41	10	/	
10536	0	0	9A3		30R5	707										
10537	3	7	VA3	0	3003	707	-	41,42,43	T-R	1	3	43	of the last of the last of	1-R	1,95	GOOD COMPINING AB
10540	3	3	1143	0	3084	808		T								
10541	0	3	9A3	0	3005	9E8										
10542	0	0	11A2	3	30B5	908										
10543	0	-0	1003	0	29A4	708	0	p	of the	RES	12 62	000		2015	CONTRACT.	THE REAL PROPERTY.
10544	3	3	1194	17	3002	908										
10545	0	3	10A3	7	2985	70.7	- 1	13,40,42	S	43,44	S	43		T-R	1,44	BAD COMBINING ABI
10546	3	7	1144	0	30R5	505	+	44								
10597	0	3	1044	7	3084	1004	-	22	OSA	-100	PERM	State.	CONTENTED OF	133513	10413	THE RESERVE
10548	3	-0-	1043	7	30B4	8E8										
10549	1	0.	9A4	1	3006	807	+	43	I	43.				Т	43	
10550	0	0	11A3	3	30A3	9E7	0	P								
10551	0	3	10A2	0	30A4	007				-0150	SE AL	5168	EUT DE VIE	AT IN	-	The state of the s
10554	7	?	10A5	3	3005	SES	n	42,43	7-8	1,43	8	43		7	43	
10557	0	0	10A4	3	30A5	906	+	13,42,43	55	43	8	43		S	43	
10558	0	0	10A3	3	2905	9E7	0	P								
10559	0	0	9A2	0	2905	907		TO LESS		Section.	THE	3318		HOUSE	11195	
10560	. 0	0	10A3	0	30A5	DEB	8	13,62 P			215725		Extra de la			GOOD COMBINING AB
10563	0	0	10A3	0	3005	907										
10562	7	0	10B5	7	3003	9D7	+	13,41,43								GOOD COMBINING AB
10569			11A5			9E7								THE	37	111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10565	0	0	10A2	0	2905	707	0	13,43	100		W. A		The state of		1 = 11	14 三二十二 五
10586	0	0	9A2	0	30A4	8D7	+	13, 0 P								

		/	W.50	THE PERSON NAMED IN VALUE OF THE PERSON NAMED	Council of the	General	The state of the s	TO STO		
TUR	Sand Co	and did ago	autida / Le	Accession name	Synonyms Cour of orig	in /	Political subdivision Locality of origin	of origin	Name of collecting source	Transfer of Transf
10567	D	49	15	UF = 700	COSTA FICA	LIMON	ZENT	2	UNITED FRUIT CO.	
10568	Н	14	12	OF :00	COSTA RICA	LIMON	ZENT	2	UNCLED FROIT CO.	
10549	D	50	14	UF-701	COSTA RICA	FIGOR	1600		UNTIFE PRUIT CO.	TEST.
10570	-11	9	11	UF-783	COSTA RICA	LIMON	TENT		UNLIED FROIT CO.	
10571	H	5	12	UF -705	COSTA RICA	LIMON	ZENT	-7	UNITED FRUIT CO.	
10572	D	53	1.0	UE - 206	CUSTA RICA	Licon	ZENI	2	UNITED FRUIT LO.	
10573	н	6.	13	UF-707	COSTA FICA	NUMER	ZENT	2	IMITED FRUIT CO.	PER STA
10579	H	7:	5	UF = 708	COSIA RICA	Linon	FERE	2	UNITED FRUIT CO.	
10575	н	8	7	UF - 709	COSTA RILA	L. I mUN	IMIL	.*	UNITED FRUIT CO.	
10576	н	9	4	UF -710	COSTA PICA	i, Emun	ZLr41	2	UNTIED TRULE CO.	
10577	H	10	5	UF-711	COSTA RICA	LINUN	ZENT	-118	UNITED FRUIT CO.	
19578	H	11	8	UF-712	COSTA RICA	LIMON	ZENT		UNITED FRUIT GO.	
10579	H	12	6	UF-713	COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.	
10531	н	14	1.2	UF ~ 715	COSTA RICA	Linu	11111	.:	UNITED FRUIT CO.	
10583	11	16	7	UF -717	COSTA RICA	LIMON	ZEHT	- 2	UNITED TRUIT CO	-
10584	В	9	8	X-VERDE	VENEZUELA	ARAGUA	OCUMARE	3.	ESTAC. EXP. DUUMNRE	1
10585	B	66	12	189	COSTA RICA	CARTAGU	TURPTALBA	3	CALLE	
10586	н	20	14	NO. 1	COSTA RICA	CAPTAGO	TURREALGA	.5	CALL	
11672	G	46	3	TSH-565	TRINIDAD		RIVER ESTATE	3	IMPERTÀL COLLEGE	?

/		Genera	1		1	Pr	oduction		/	3	300			Seed		. 1		
138 School and Ball Pedigree	/ 1	10 mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/m	S SE SE	1	of the state of th		5 . E	Wet so weight in	9 /	weight		2 8 F	seeds per	10	added Agion	September 1	in	1881
10567	1978	_	41.4			50	1.55	12.0	/	1	0.61	28.1	1	1.00	0.067		/	0.52
10568	1979	02	15.5	1.87	5	49	2.85	09.6	1.87	09.6	0.66	34.5			0.062		08.2	0.56
10589	1470	0.9	20.0	1,40	7	43	2.1#	04.3	1.013	10.7	0-00	34:3	16.9	H/HD	0.067	24,9	00.4	0.00
(0570	1979	116	351.6	.03		45	1.38	115.3		09.7	0.60	34:0	25,4	11.69	0,001	21.9	07.5	0.50
10571	1978	0.7	28.0	1,25	5	49	1.95	11.6	1.25	06.4	0.64	28.5	33.7	0.58	0.065	23.5	04.7	0.55
19572	1980	04	24.0	1.17	2	цц	1.92	9.7	1717	11.4	0.61	35.7	19.7	0.81	0.061	24.2	6.2	0.57
0573	1978	0.7	20.9	1.50	.5	40	2.49	11 B	1,55	13.8	0.62	31.0	20,0	0.77	0.051	25.4	09.7	0,56
0574	1979	77	20 ù	1 36	3	44	2,55	12.8	1.50	12.9	11.61	32-1	25.9	11.73	0.090	27.3	#4,5	0.53
11575	1979	0.6	20.8	1.49	6	47	2.27	10.9	1.49	09:8	0.66	32.3	28.8	0.69	0.040	25.7	07.7	0.58
10574	1979	0.7	19,2	1,32	3	457	2,09	29,6	1,32	26.7	0,63	39.5	17.1	0.81	0.047	26.0	09.7	0,57
08/27	1979	95	19 7	1.56	5	45	2,46	118.4	1/56	123	V . 63	32.4	31.5	0.72	9.051	25.7	05.2	0.50
0578	1979	00	2615	1 10	14	47	1.71	12.1	1.16	14.7	0,68	32 5	30.5	0.67	0.052	24,4	04.B	1:56
11579	1978	0.7	26.5	1.31	4:	45	2.09	23.3	1.31	18.8	0.83	_18.9	35.3	0.64	0.057	24.7	06.6	0.55
1830	1978	07	25.8	1,39	7	4.5	2.14	12.1	1,29	17.5	0.40	30.0	27.5	0.70	0.065	26.1	06,5	0.54
0503	1978	0.7	22.7	1 39	3	49	2.09	14.8	1.24	37,5	0.62	29.1		0.70	0.054	29.8	05:2	0.55
0584	1979	10 %	13.4	1/21	192	47	3,13	10.0	2.71	11.5	0.70	32.5	31.1	0.59	0.037	28,5	05.1	0.55
(05B5)	1979		22.5	1.92	5	34	2.37	0.6 " \.	1.4%	11 4	0.62	-503	28.7	0.78	0.058	22.9	05.8	0.64
9100019	1979	0.5	20,8	1 59	- 4	44	2.34	0.7.54	1,54	031.12	0.1515	31.45	25.4	0.71	0.037	27,9	05.6	0.53
14672 SCA-6 8 TMG-67	1848	05	32.51	3270		50	1.98	9715	3 35	30/2	11 -5,0	350	24.3	0.54	0.061	2512	.05 5	N.M.S.

	MIL		1	FIE			S	ed		CH T	100	1	TANK T	150	500		11010	Fr	uit	355	450			3	
/	mean	Ser	ed width		d thi			100	2/8	dan color	1.	uit lengi in mm	th /	ruit widt in mm	o Francisco de la constante de	San	C AT / Fr	uit weigh		Fruit wal kness at n mm		Fruit walkness at	1	A STANDO	2 / 10 x
/ TAR	mean	/cv	mean	/ cv	1/3	2/6	2/	8/8	1 4 B	mean	/ CV	mea	m/cv	1 200	State of	mea	/ CV	mean	/cv	mean	/ cv	1	1	18/3	E / 28 . C. /
10567	13.7	05.8	07.6	07.8	0	0	+	0	0	130	11.5	082	07.3	0.63	0.52	418	28.9	13.8	02.9	08.0	06.3	30D7	9	9	8
10560	15.8	07.6	09.9	10.1	0	0	+	0	0	188	11.2	087	09.2	0.46		552	31.2	09.5	11.6	05.6	16.1	30E8	9	7	5
10569	14.7	05-4	08.7	19-V	0	0	0	4	0	157	08.9	DH5	114 . 7	JJ 5%		513	250 3	11.1	00.9	97-27	15.0	SUE	9		3
10570	12/4	07-8	07.5	0.80	0	0	+	11	0	234	11.9	0.84	07:1	0.43		16.200	30.5	80 B	10/11/4	05.0	19.5	1907	0	ō	a
10571	12.9	04.8	08.3	10.8	0	0	0	+	0	150	13.3	084	10.7	0.56		437	30.7	12.0	10.0	07.2	13.9	29E8	0	0	0
10572	13.8	4.3	8.1	8.6	0	0	+	0	0	144	11.1	93	8.9	0,65	0,53	581	28.3	12.0	12.5	7.5	10.0	3004	3	3	0
10573	14.2	05.3	10/5	05.7	0	0	+	0		181	11.0	087	10_3	0.70		607	26.8	1315	00.9	00.4	10.1	3007	U	0	
10574	14.6	08.7	09+6	18.2	D.	0	+	n.	0	200	13/5	1198	88+3	0.47	0.52		35.7	15 0	12:7	112-9	10 9	2908	9	9	7
10575	15.0	07.5	10.1	10.7	0	0	0	+	0	184	14.8	090	12.3	0,49		691	33.8	13.8	11.1	08.2	13.3	2908	9	9	8
10576	14.9	13.2	09.3	12.3	0	0	+	0	Ü	204	12.5	097	10.6	0.48		841	25.1	13.7	11,7	08.2	12.2	2905	9	9	7
10577	15.1	08.2	00,3	05.5	0	0	+	10.	.0	190	11 1	1192	05.9	11.149	12 2	638	23 6	13.3	10.9	07.9	15.4	19E11	9	9	7
10578	13.6	06.4	05.8	01.0	0	0.	0		0	171	21/2	890	08.4	0.54		629	27-1	13.5	12.2	6.70	11.2	2005	0	0	0
10579	13.6	12.3	09.1	08.7	0	0	+	0	0	171	13.9	081	08.8	0.47		509	39.1	12.6	15.7	08.4	16.1	29E6	Ö	0	U
10581	14.1	07.1	09.7	10.3	0	0	+	0	0	153	13.7	084	09.5	0.55		463	33.9	13.7	08.7	09.6	09.4	29E8	9	9	7
10583	13.6	08.2	0.9 5	11-1	0	ij.	+	0.	0	180	21.4	11811	119 3	0.44	0 20	629	91.3	15,2	11.3	07.11	14.3	2984	0	9	D .
1.0584	14.3	04.3	11.1	07.2	+	0	+		0	201	14.1	0.93	07.8	0.42			39.1	15, 1	12,8	09.4	17.72	3005	0.	0	0
10585	14.6	04.4	11.0	08.9	+	0	+	0	0	195	12.1	1184	07.8	0.43		521	21.1	11.9	10.3	06.9	15.3	2903	0	0	0
10586	14.7	04.7	10.4	11.2	0	0	+	0	0	224	11.6	097	07.2	0.43		852	28.1	13.6	13,6	09.1	12.8	2904	2	0	0
11672	12,3	64.1	119-4	-04.2	+	U	+	-	0	211	14.7	1186	115.8	17:16.5	1000	623	26.6	18 3	13.5	07.8	31.9	290a	0.	6	0

0876	11	HE H		/			Fr	uit	1	/	MA	7761		4	14		Flower	- 70		1	UUT		295323
/	1	of delight of	and of the	de la	and and	A SERVED	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the state of t		le length	/0	vary leng	th /c	ovary wid	th /s	Staminode length in mm	/se	epal lengt	1/5	Sepal width	/	gule length	Ligule width in mm
138	1	1 10 A	38	ide /4	2	200	1 SE SE	mean	/cv	mea	n/cv	/mea	n/cv	mea	n/cv	mean	/ CV	mea	n/cv	mean	/ cv	/mean	/cv/
10587	5	0.72	2	5	5	0	7	1,92	0.14	1,31	0.09	0.98	0.05	5.73	0.32	8.91	0 57	2,20	0.27	6.92	0.30	2.16	0.20
10568	5	0.93	5	5	3	1	3.	2.34	0.15	1.41	0,11	1,01	0.05	7,86	0.03	9.35	0.41	2,11	0.16	8.71	0.68	2.36	0.32
10569	2	0.81	ð	3	3	1	3	2.0	0:12	1.4	0.09	0.98	0.01	8.0	0.37	8.2	0.52	2.1	0.13	7.5	D.56	2.1	0.24
10570	0	0.90	4	3	T	- 0	5	2.23	0-17	1.24	0.14	1.01	0.05	7,14	0.21	771	0.45	2.23	0.21	7,35	0.48	2,14	0.15
10571	Ü	0.71	4	5	3	3	7	2.58	0.31	1.29	0.14	1.0	0.04	7.11	0.19	9 18	0.61	2.99	0,31	7.78	0.46	2.56	0,39
10572	0	0.82	3	2	3	1	7	1.78	0.15	1,28	0.09	0.87	0,07	6.56	0.24	9.34	0.31	2.24	0.20	6.99	0.58	2,09	0.15
10573	0	0.81	4	5	5	1	3	1,96	0.08	1.36	0,12	1.03	0 - 04	7,54	0.29	8,68	0.42	2741	0.16	7.39	0.53	2,72	0-13
10574	5	0.94	2	5	5	1	7	2.23	81,0	1.34	0.15	1.01	0.02	7.95	0.36	8.54	0.52	2.38	0.30	7.86	0.67	2.45	0.21
10575.	E,	0.70	5	J	5	5	3	2.79	0.63	1.53	0.14	1.05	0.09	8.40	0.43	7.87	0.64	2.28	0.22	8.73	0.58	2.52	0.16
10576	3	0.72	o	5	5	1	7	2.02	0.06	1,40	0.18	1,01	0.06	8,93	0.39	7.16	0,46	2,15	0,16	9.09	0.76	2.17	0.22
10577	5	0.72	7.	7	5	5	3	3,14	0.05	1.59	0.16	1:01	0.07	8705	0.38	10-25	0.96	2,46	0.21	B.55	0.43	2+69	0.23
10570	0	0.66	5	4	- 3	3.	3	2.91	0.52	1.22	0.07	1.07	0.09	0.52	0.48	7.63	0.48	2,12	0.21	7.02	0.48	2.61	0.24
10579	0	0.68	à	- 5	25	.3	5	1.50	0.12	1.51	0.05	1.0	0.03	7.31	10.00	9.67	0.31	2.38	0.28	7.81	0.81	2.71	0.26
10501	5	0.02	23	3	5	3	3	2.42	0.11	1.49	0,08	1 ± 0.1	0.05	7.93	0,21	8.49	0.70	2,42	0.26	8,10	0.55	2.70	0.18
10583	0	0.72	5	4	5	3	5.	2.29	0.26	1.42	0.08	0,58	0.05	7,82	0.38	2.30	0.41	2,52	0:23	5.99	0.48	2,67	0.24
10584	0	0,75	6	6	6	0	3	2.09	0,10	1,36	0.07	1,03	0.04	7.80	0,44	7.91	0.53	2,43	0.28	8.50	0,53	2.87	0.32
10585	.0	0 74	1,	7	11	9	· É	1.33	0 20	1.43	0.09	0.297	685	7,43	0.32	8.74	0.47	2.77	0.42	8.22	0.46	2.63	0.17
10586	0	0.75	3.	3	1	I	5	2.39	0.110	1.19	0.14	11,95	0.07	7,11	0.33	9.09	0.29	2,46	0.19	8.27	0.47	2.69	0,34
11672	0	0.70	3	5	6	5	ă	2.43	0.12	1.53	0.05	1.08	0.09	8 22	0.78	9,12	0.43	2.89	1.64	7.89	0.89	2,86	0.55

95		100	NE.	1		Flower L	af /	100	100		Compatibility and resistan	ce	/
/28	1	Antro	Printed States	Se land	printer and see	Set	Reference	ves patros patro	References	18/	MANAGEMENT OF THE PARTY OF THE	Jahrinto /	eferences Notes
10007	0	0	10A3	7	30B4	9E7							
10569	0	3	10A4	0	30A4	9F8							
10569	0	0	10A2	3	30B4	607.		1		all the same	BRITISHER	SERVICE STATES	HATTER BUTTON
10570	3	7	10A4	0	30B3	AC5							
10571	0	7	10A4	0	30B4	6D7							
10572	3	3	10A4	0	3004								
10573	3	3	10A3	0	30A4	705					THE RESERVE	Distance of	
10574	0	0	BA2	7	30B5	7E6							
	U	3	10A3	7	30B4	7E 6							AND DESCRIPTIONS OF THE PERSON NAMED IN
10576	0	0	10A2	3	30B4	707							
10577	0	3	1006	7	3004	9E6						33	
10578	3	0	10A3	7	2904	4E5							
F0077	3	3	10A5	7	30B4	404							
10581	3	0	10R5	3	30BS	908 + P							
10583	3	3	10A5	0	30B4	4D5				1011	W WILLIAM	TOE IS	H. F.
10584	3	0	10A3	0	30A4	706	1-17	1	U-		THE STREET		
10585	0	0	10A3	3	30A4	4 [14							
10586	7	3	10A4	0	30B4	806							
11672	3	U	9A4	0	3005	91 /8 0 42	T · P	1	TP	1,37			SEEMS ANDTHER CLO

CATALOG PART II

PARTIALLY DESCRIBED CLONES (See flap at the end of this part)

						General				
FUR NO.	Service L	ed dici	and A	Accession name	Synonyms Cox of ori	intry subgin of or	Political division Locality	of origin	Name of collecting source	· /38 3/45/
10090	A	11	4	AMANAVEN						
0099	н	52	5	BE-2	BRASIL.	BELEM				
0100	H	53	3	BE-3	BRASIL	BELEM				
0101	H	54.	7	BE-4	BRASIL	BELEM			the state of	-
0104	н	70	7	CAAG						
0107	A	62	5	CAR-1						
0129	A	7	3	CATONGO URUCUCA	DRASIL					
0137	0	26-27	2	CC-30	COSTA RICA	LIMON	28 HILLAS	3	LA LOLA	1
0138	С	26-27	7	CC-33	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
0156	С	26-27	3	CC-54	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	1
0157	D	85	6	CC-80	COSTA RICA	CARTAGO	TURRIALBA	3	CENTRO DE CACAD	1
0173	E	23	8	CC-124	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
0183	E	22	6	CC-158	COSTA RICA	LIMON	28 MILLAS	3	LA LOLA	1
0187	Ε	21	6	CC-210	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0194	E	17	4	CC-124	COSTA RICA	CARTAGO	TURRIALEA	3	CATTE	
0196	J	30	4	CC-215	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0197	J	29	5	CC-220	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0198	J	28	5	CC-221	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0199	E	16	8	CC-222	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0200	E	15	В	CC-223	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0210	J	26	5	CC-237	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0213	J	23	4	CC-243	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0216	E	4	7	CC~246	COSTA RICA	CARTAGO	TURRIALBA	3.	CATIE	
0218	E	2	2	CC-250	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
0220	J	22	5	CC-252	COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	

	-		Gen	eral		/	/		/					Frui		Compatibility a	nd resistance	/
	Total Total		/	OHO!	San	Harring ages	/	1	color	7	in	ntho itens	ity ir	in de		Voorbithor dalnivor	Indicate /	
TUR.	grant number	ligree /	of deep	Out of	AND THE PARTY OF T	Hugh color	Strike.	88/	10/2	100	de la	Siles Siles	rin's		tige of the state	Voorbitata aliminate	and September 1 to 1980 to 198	Notes
0090		1980	4	/	406	29E7	0	0	0	0		1	2	3		, , , , ,		
0099		1980	4		107	2905	0	0	0	0	3	1	3	3.				
0100	THE THE	1980	q	1	5D5	2904	- 0.	0	0	Ü	2	2	3	3				
0101		1980	4		9E8	2918	9	P	3	0	5	3	3	0				
0104		1980	4		708	29E8	0	0	.0	0	ij	2	3	3				
10107		1980	4		1007	29B3	9	7	8	2	3	3	Š.	3				
10129	The same	1980	4	-61	107	2989	0	0	0	0	1	1	3	1				
10137	MATINA				808										R			
0138	MATINA	1980	4	2	908	30B3	0	0	0	0	3	1	3	3	R			
10156	UF-667	1980	14		908	30B5	9	7	7	5	7	3	7	2				
10157	UF-668	1980	- 14	2	706	30E6	0	0	0	0	3	2	F.	3				7
10173	UF-613	1980	4	2	906	2918	9	9	7	5	2	2	3	3				
10183	UF-613	1980	4		707	3006	1	0	0	0	3	5	4	3				
10187	SCA-12	1980	4		807	30F8	3	0	1	0	3	2	5	1				
10194	SCA-6	1980	4.	2	BD7	2908	2	0	1	0	3	5	5	2			Wilder of	-
10196					507													
10197		1980	4		808	2904	1	1	0	0								
10198																		
10199		1980	- 4	3	706	28E7	0	0	0	0	2	3	5	1			STUDIES SE	
10200		1980	4	2	907	29B3	8	4	Lp	1	4	8	6.	0				
10210		1980	4		8C7	29E8	0	0	0	0	4	3	5	2				
10213		1980	4	2	8118	3004	9	7	5	3	2	2	8	0				
10216		1980	4		206	30B3	0	0	0	D	34	7	5	6			C. TARRESTON	
10218		1980	4		9E8	2904	2	2	1	1	2	2	2	D				
10220		1980	4	2	8E7	30C4	9	9	7	7	3	2	4	2				

				The second			General		PATE.		Tell February
TUR	a sion	artifet do	number / Tre	Accession na	ame Synonyms	Cour	ntry subdiv	/	origin	Name of collecting source	A TOTAL OF THE PARTY OF THE PAR
10223	J	19	7	CC-255		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10233	В	13	5	CHUA0-24	CHU	VENEZUELA					
10235	н	60	6	CNS-22	CNS.22	VENEZUELA	HANNAS		2	FINCA CANU NEGRO	Tester-12
10244	н	68	8	C. SUL-3		BRASIL	AHAZONAS	RIO JURUA	2	HACIENDA BUAJARA	
0246	G	43	9	CU-1 EN SEMI		HONLIURAS	CUYAMEL				
0247,	н	21	13	CU-1 EN SEMI		HONDURAS	CUYAMEL				
10248	н	45		CU-1		HONDURAS	CUYAMEL	Bill Stringer Lie			The plant
10249	Н	46	1	CU-2		HUNDURAS	CUYANEL				
0230	Н	47	3	CU-3		HONDURAS	CUYAMEL				
10252	В	58	9	DR-1		INDONESIA	AVAL				
10253	В	30	3	DR-38		INDONESIA	JAVA	S SWEET	Chep	-F	
10261	D	54	11			COSTA RICA	CARTAGO	TURRIALBA	3	CATIE	
10263	D	55	13	EET-45	SANTA ROSA 23	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	
10274	D	59	9	EET-96	PORVENIR 10	ECUADOR	LOS RIOS	G NEAEDO	2	HAC. EL PORVENIR	1
10284	G	10	14	EET-364	PICHILING, 7682	ECUADOR	LOS RIOS	QUEVEDO	3	PICHILINGUE	2
10287	D	63	2	EET-390	SEL. CROSS 2166	ECUADOR	LOS RIOS	QUEVEDO	3.	PICHILINGUE	2
10292	A	63	11	G-23		INDONESIA	GETAS				
10295	В	60	10	GC-29		JAMAICA					
10298	C	82	15	65-78		GRENADA		50000	= 2.5	15 55 55	
10307	C	64	7	IAL-325	SIAL-325	BRASIL	BAHIA	BUENAREMA	2	MACIENDA BAMEIN	
10308	С	45	7	IAL-339	SIAL-339	BRASIL	ВАНІА				
0310	В	72	2	ICS-1	EET-274	TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10312	н	24	10	ICS-B	EET-277	TRIMIDAD		RIVER ESTATE	2	HACIENDA PHIPS	
10314	н	26	5	108-32		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
10319.	В	48	9	ICS-45	EET-276	TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	

-11/15/55	/		Ger	neral		-	/		1	/				Fru	iit	/				resistance /
1	/	1770		/	/	1	1	1	10	\$ /	1	Inth	ocya sity i	nin	/	11111		100	1	///
13F1 State of Contract of			of Sept	dion	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1/0	51	and	200	1	7	100	7	1/3		2/2/2/	,	ore painty of	iciosa /	Coch sist imbridge Notes
1	Pedigree	/	des	1/8	Se light	1300	1	and /	//	/	100	2/2	13	6/20	9/3	Reference	5 min	ore lis per	(Orer	Notes Notes
138.8		10	°/	Paris /	E / N	and the state of t	1	188	35/3	88/2	M. Hall	/di	413	1/2	73)	1 / N	YON/C	rinide Mo	hills forest	60
10223		1980	14		107	29E8	0	0	0	0	3	2	4	3	-	,	-			DUBIOUS CLONE
10233 CRIOLLO	VENEZ.	1980	4		807	2907	9	8	3	2	ц	3	6	3						LAST TREE DESCRIBE
10235		1980	4	2	4D7	29 BH	0	0	0	0	3	3	5	3		3 2 2 3	-	32		3-3-3-3
10244		1980	4		2E7	29B3	8	7	2	1	5	3	4	5						
10246		1980	4	5	707	3007	Ó	ė.	0	0	1	1	5	1						
10247		1980	14		107	2906	0	0	0	0	3	3	5	0						
10248	1112115	1988	19.	2	9E7	3058	9	9	5	3	2	1	4	3						
10249		1980	4		607	30E9	0	0	0.	0										
10250		1980	4	2	107	30C5	0	0.	0	0	2	2	3	1						
10252		1980	4	2	405	2905	9	8	3	U	3	5	7	3			Ś			
10253	THE ST	Talled.		117	109		9									Service Service		37868	392	All the same of the
10261		1998	4	7	908	2904	9	9	5	2	5	4	16	1	4	11.22,41	S		S	SAME AS 10232
10263		1980	t ₄	3	8E7	30F8	0	0	0	0	5	5	á	0						
10274		1980	4	2	6C6	30104	2	0	ij	0	6	3	5	1	+	41,43	S	5	T-R	GOOD COMB. ABILITY
10284	IN SEV	1980	14		808	29E7	0	0	0	0	4	5	5	3		The same	133	1933		1
10287 EET-238	X SCA-12	1980	4	1	SAA	29E8	0	0	0	Ô	5	3	14:	0						
10292		1980	14		607	29E7	0	0	Ó	0	3	3	5	2						
10295		1980	6	3	5116	29E8	0	0	0	0	5	5	6	1.1						
10298	300	1980	14	1	607	29E8	0	0	0	0	2	2	n.	0						DUBIDUS CLONE
10307		1980	-14		708	30E0	0	0	0	0	3	2	5	5						
10308		1980	4		BE7	30E7	U	0	0	0-	1	1	3	0						
10310		1980	14		BDS															
10312	YE W	1980	4	1	707	30E7	0	0	D	ij-	3	3	4	U	+	10,22,41	S	9	T	
10314					1B5													9778	193	
10319		1980	4	5	3E?	29118	Ū	0	0	Ū.	2	3	3	2	1	30	T	R		

			-				General				
TUR	San La	AND ROT	and the state of t	Accessi	ion name Synor	nyme Cou	intry subd	olitical vision Locality of	origin	Name of collecting sou	reo / 1.42 de 18
0320	B	50		ICS-46		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0322	В	49	10	ICS-47		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0327	B	37	5	ICS-Bu	2000	TRINIDAD	75	RIVER ESTATE	3	IMPERIAL COLLEGE	
0328	В	53	6	105-91		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0330	В	69	10	ICS-138		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0332	В	75	5	ICS-135		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0336	C	80	9	1CS-98		TRINIDAD		RIVER ESTATE	3	IMPERIAL COLLEGE	
0340	B	71	13	IMC-67	EET-116	PERU		Iquitos			
0342	н	65	5	10-1		PERU		IQUITOS			
0347	В	63	9	LAFI-7		SAMOA					
10348	H	62	8	LF-1	at the same	COSTA RICA	ALAJUELA	SAN CARLOS	1	LA FORTUNA	
10349	H	63	4	LF-2		COSTA RICA	ALAJUELA	SAN CARLOS	1	LA FORTUNA	
10350	Н	64	6	LF-3		COSTA RICA	ALAJUELA	SAN CARLOS	1	LA FORTUNA	
0357	A	75	13	MEX-5		MEXICO	CHIAPAS				
0361	A	71	8	MEX-11	-	MEXICO	CHIAPAS			4000	
10362	A	70	8	HEX-12		MEXICO	CHIAPAS				
10363	A	68	7	MEX-14		MEXICO	CHIAPAS				
10369	н	44	1	MT-1		HONDURAS	MONTES				
10375	C	60	8	P-8	311	PERU	-		-		
10377	н	29	3	P-11		PERU					
0378	J	8	8	P-12		PERU					
10384	В	81	4	P-22		PERU					
10386	B	79	8	P-113		PERU					
10374	A	9	12	PARA		BRASIL	BAHIA	ITABUMA	3	CEPEC	
10404	н	48	4	PV-2	VLA-102	VENEZUELA	MARACAIBO	RIO CATATUMBO	2	PRIVATE FARM	

/		Gen	eral	Tion.	1	1		1	1				Frui	2	Teach 1	1				resistance
13/			/	/	and and	7	1	300	/	Ain	ntho	cyan ity ir	in	/	////	1	H	100	1	///
S. Carrier /		o design	Bilon	100	//	1	100	3/	7	17	2/		18				/	almi di	0000	(unarial)
Pedign	00	of 9880	8 / S	8/35/	Real cold	Krist	4	1/5	18	8/5	18	23	300		Refer	ences	ohthor	ellis pe	is rore!	CISTS Notes
TUR states of reference Pedigr	10	/2	E/2	B/ 48	1	/	8/4	2/2	8/3	E.	ditt's	(3)	(3)		3/	PHY!	" Cini	Salmiyora Sallis Derni	Cere	occupate in the property of the contract of th
10320	1980	ц	3	307	3007	6	0	3	0	4	3	7	0							
10322	1980	4		2E7	2908	0	0	(f	0	6	7	7	1							2ND. TREE IS CLO
10327	1780	4	1	504	2904	0	0	0-	0	5	3	5	0	U	32	155	5	100	93	DURIOUS CLONE.
10320	1980	- 4	1	507	2905	9	9	5	0	5.	5	7	0-				1-10			
10330 ICS-6 X SCA-12	1980	4		507	3004	0	0	0	0	5	7	8	3							DUBIOUS CLONE
10332 ICS-6 X SCA-6	1980	4		107	30B4	0	0	0	0	3	5	5	0							
10336	1980	13.		607	2960	0	0	0.	0	3	3	5	1	+	30,41,42		THE	5	- 1	GOOD COMB, ARILI
10340	1900	. 4	3	700	29EB	0	0	0	0	8	5	5	0							
10342	1980	4		506	29E8	0	0	0	0	5	3	5	5							
10347	1980	14		108	2904	1	ŋ.	0	0	3	3	4	2			T-R				
10348	1980	4	Mili	4E8	3008	2	0	0	0	ŝ	3	5	1	66	111 (5)13	550	957	700	5000	William .
10349				286																
10350				406		_		_	_	_	_	_	_							
10357	1980	4			28E7	0	U	0	0	2	1	6	0							
10361	JETCH	900		11525	25/45	H	H	100	10	9	100			100	ESSENCE.	869	96	505	230	
10362	1980	4		507	28E6	U	0		0	2	0	6	5							
10363																				
10369				6E8																
10375	1980	4	533	9E7	2903	8	5	5	1	3	5	5	0	300	- TO THE R. P. LEWIS CO.	953	1900	656	200	177
10377				707																
10378	1980	4	2	307	29E8	0	0	0	.0	4	4.	3	2	0	42,44					
10384	1980	4		307	29B3	2	2	0	0	4	6	7	5							
10386	1980	-14	1	.307	3007	T,	D	0	0	7	5	6	1.		100000	100	100	NO.		TREE 7 DESCRIBED
10394	1980	4		807	2904	0	0	0	0	1	1	3	2							
10404				107																

		/		BOUNDER			General	A PART		
ZIR ZIR	1000	and got	Redited 1	Access	sion name Synor	nyms Cou	ntry subdis		rigin /c	Name of collecting source
0413	Н	51	2	PV-6		VENEZUELA	MARACAIBO	RIO CATATUMBO	2	PRIVATE FARM
10916	C	33	3	R-6	.6R	WEXICO	CHIAPAS	/ TUXTLACHICO	2	HACIENDA LA RIOJA
10423	C	+0	8	R-21	21%	MEXICO	CHIAPAS	TUXTLACHZCO		HALTENDA LA RIUJA
10424	C	41	8	R-23	23R	MEXICO	CHIAPAS	TUXTLACHICO	2	HALTENNA LA RIOJA
10425	C	42	6	R-24	24R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10426	C	43	6	R-30	30R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10427	C	44	7	R-39	308	MEXICO	CHIAPAS	FUXTLACHICO.	2	MACIENDA LA RIOJA
10428	B	65	6	R-41	41R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDO LA KIUJA
10429	С	45	4	R-43	43R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
0430	C	46	10	R-44	44R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10431	C	47	3	R-4B	488	MEXICO	CHIAPAS	TUXTLACHTCO	2	MACIENDA LA RIDJA
10432	C	48	9	R-52	52R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10433	С	49	8	R-56	56R	WEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10434	В	82	7	R-68	68R	MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
0437	C	54	4	R-100	1008	MEXICO	CHIAPAS	TUXTEACHTCO	2	HACTENDA LA RIGUA
10440	C	55	9	R-101	101K	MEXICO	CHIAPAS	FUXTCACHICU	2	HACIENDA LA KIDJA
10442	C	57	10	R-106		MEXICO	CHIAPAS	TUXTLACHICO	2	HACIENDA LA RIOJA
10445	Н	56	8	RB-29		BRASIL	RIO BRANCO	XAPURI-ACRE	2	
10446	G	39	10	RD-29		BRAGIL	RID BRANCO	ACRE	2	CARRETERA A XAPURI
10451	46	58	4	RE-93		BRASIL	RIO DRANCO	CHICO PEDRO	2	
10453	н	59	3	RB-47		BRASIL	RIO BRANCO		2	COL. GABINO VISORO
0454	G	45	6	RB-49		BRASIL	RIO BRANCO		2	COL. GABINO VISORO
10459	C	68	3	SC-13	25-17-12-12-12	COLOMBIA	VALLE	PALMIRA		
10460	C	69	5	SC-24		COLONBIA	VALLE	PALMIRA		
10461	С	70	5	SC-49		COLOMBIA	VALLE	PALMIRA		

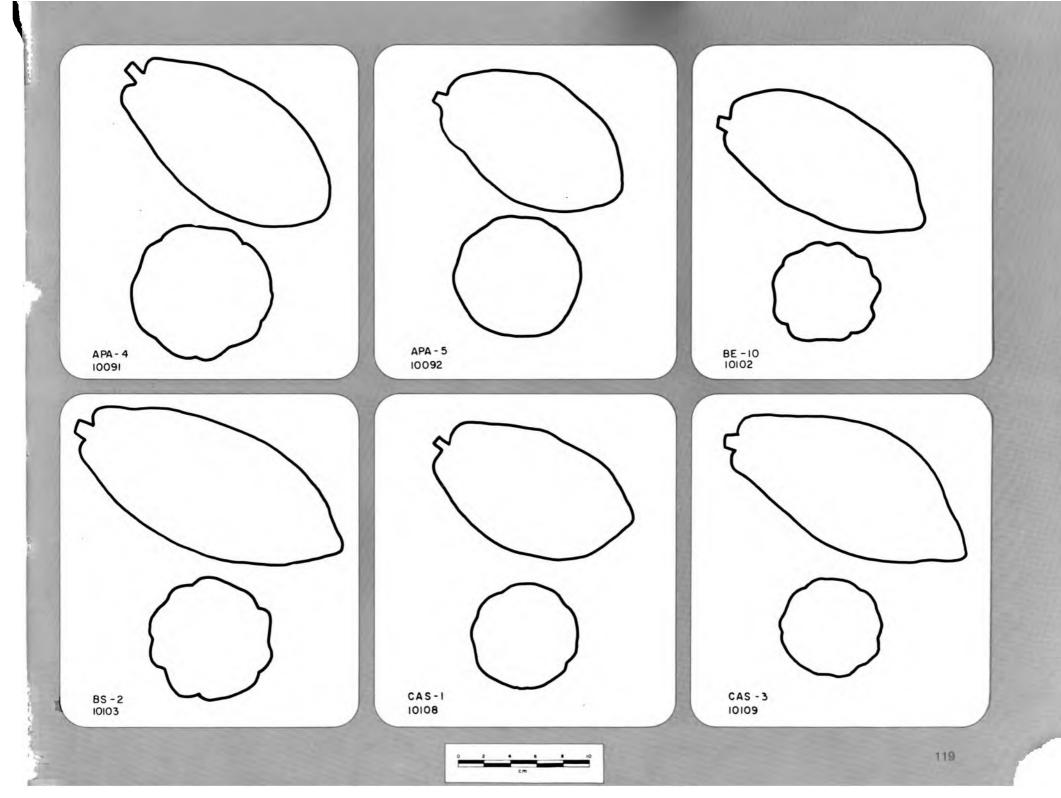
		Genera	1	/	/		1	/				Frui	t		/		patibility	and re	esistance	1	
1	/	1	//	/	1	1	103	/	A	ntho	cyan	in	//	1//	11		18/	/	//	/	
And the state of		2 18 18 18 18 18 18 18 18 18 18 18 18 18	5 / July	and of the last	1	18	8/	7	7	2/		18		1 /2 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1	/	respector of	Monitar	/	State Strabilities		
1	Pedigree	Sage /	100 A	Maria Ches	CHIL.	1	//	1	3/2	100	100	1 8 8 P			References	hithoro	Monitia C	ole,	Sis!	Notes	
134.4	100	1200	12 × 10	1 000	1	8/	2/8	8/3	(3)	ail!			3/	300	PIN	TOY Crimips	Monilla	Cerator	/		
10413			907									•	-	,	-						
10415	1980	4	808	2904	9	7	5	2	4	4	7	3									
10423	1980	4	507	2704	0	0	0	0	4	5	7	1	96	199	5319	100	66	88	W-200	1	
10424	1980	4.	708	2964	7	4	3	1	3	5	7	1									
10425	1980	4	706	2904	0	0	0	0	3	4	7	3									
10426	1980	4	7E7												S			S			
10427	1980	4	807	2904	7	4	3	2	3	5	7	3		-19	13 60	200	3320			1-17-3	
10428	1980	4	6F.8	30B4	2	2	0	0	3	5	7	3									
10429	1980	4	707	2904	0	0	0	0	3	5	7	3	_								
10430	1980	ц	407	2904	0	0	0	0	3	3	5	0									
10431	1980	14	807	2964	7	2	5	0	3	5	7	2	13	12 0	9	3800	-	S	1999	-33	
10432	1980	4	405	2904	.0	0	0	0	4	5	6	3									
10433	1980	4	506	2904	2	1	0	0	4	5	6	3									
10434	1980	14	607	2905	3	0	0	0	3	3	3	3							INCLUD	ES PENTA	GO
10439	1980	14-	707	29.04	8	7	5	3	3	5	6	3.	E	1250	5797	200		3	-	-	
10440	1980	14	407	2904	9	8	5	4	5	5	7	1									
10442	1980	4 5	5 1E8	2904	0	0	0	0	3	4	7	3.									
10445			907																		
10446	1980	14 1	807	2905	0	0	0	0	3	1	3	3	EU	-152	227-5	1000	-	98	200		
10451			107																		
10453	1980	4	608	29E8	0	0	0	0	2	3	5	3									
10454	1980	4	6D7	3004	0	0	0	0	3	3	5	U									
10459		- 20	9E7												1577	G.	98		200		
10460	1980	4	507	29E8	0	-01	D.	0	1	1	4	3	1	41,44							
10461	1980	4 5	5 407	2904	0	()	0	0	3.	4	5	1		44							

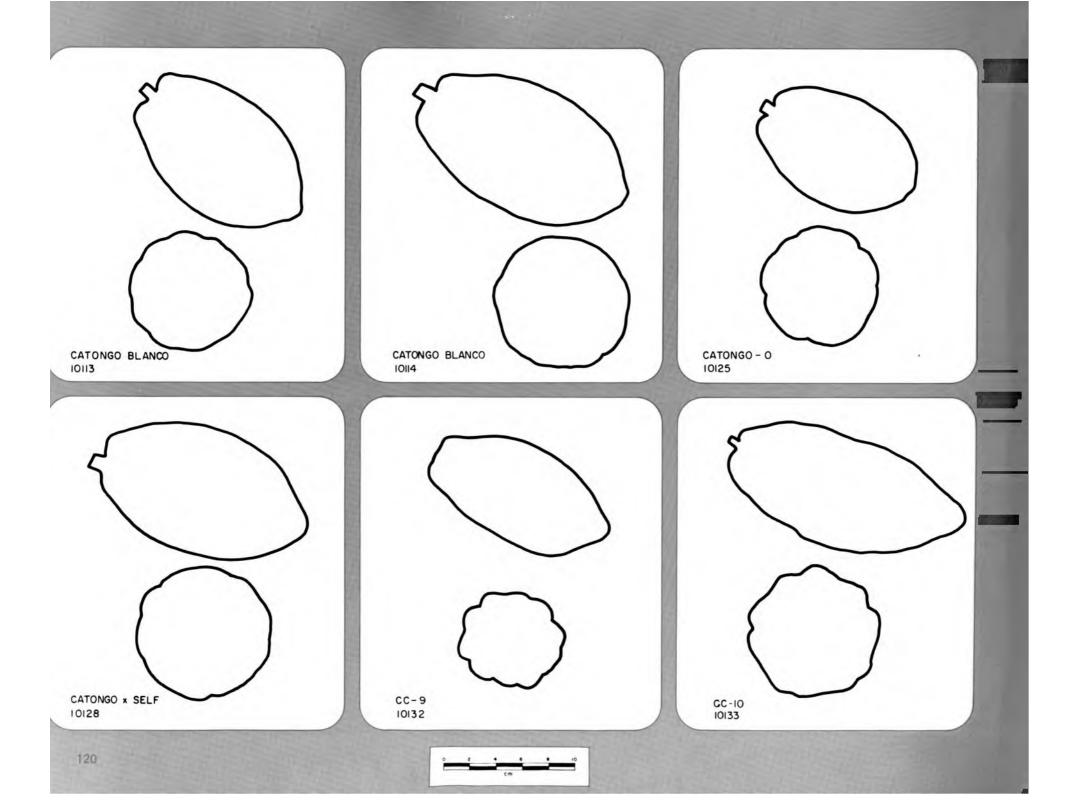
			100			-	General	N 10 10 10 10 10 10 10 10 10 10 10 10 10		and the late of th
TUR	100/2	and did and	Tradition of the	Accession	name Synor	nyms Coul	ntry Pe		of origin	Name of collecting source
0462	C	71	7	SC-51		COLOMBIA	VALLE	PALMIRA		
0463	B	40	9	SCA-6	EET-11	ECUADOR			2	HACIENDA ESCAVINA
0470	A	5	1	SGU-63	2320	GUNTEMALA	THE THE PARTY	OF STREET	F 11-3	A STATE OF THE PARTY
0476	A	6	8	SGU-84		BUATEMALA				
0485	н	39	5	SIAL-169		BRASIL	BAHIA	JUCARI	3	INST. AGR. DO LESTE
0503	Ĥ	23	1.1	SM-2		BRASIL	SAU THOME	SAU MANUEL		
0505	B	24	В	SPA-9		COLOMBIA	VALLE	PALMINA		
0513	В	64	7	STICA-100	\$71-100	CUSTA RICA	CARTAGO	TURRIALDA	3	CATIE
0528	C	78	11	TSHN-812	TSH-812	TRINIDAD				
0539	D	39	12	UF-36		COSTA RICA	LIMON	ZENT	.2	UNITED FRUIT CO.
0556	H	71	8	UF-613	EET-4	COSTA RICA	CIMON	ZENT	2	UNITED FRUIT CO
0561	D	51	15	UF-567	EET-281	CUSTA RICA	LIMON	ZEHI	2	UNITED + RUIT CU.
0580	Н	13	9	UF-714		COSTA RICA	LIMON	ZENT	2	UNITED FRUIT CO.
0582	Н	15	7	UF-716		COSTA RICA	L.IMON	ZENT	2	UNITED FRUIT CO.
2871	C	75	11			COSTA RICA	CARTAGO	TURRIALBA	3	CATIE
2872	D	42	1.0		12 - 3 - 6	CUSTA RICA	CARTADO	TURRIALUA	3	CATTE
2873	D	45	6			COSTA RICA	CARTAGO	TURRIALBA	3	CATIE
2874	J	10	9	CC-182		COSTA RICA	CARTAGO	TURRIALBA	3	CATIE
2875	H	16	12	UE-784		COSTA RICA	LINON	ZENT	2	UNITED FRUIT CO.

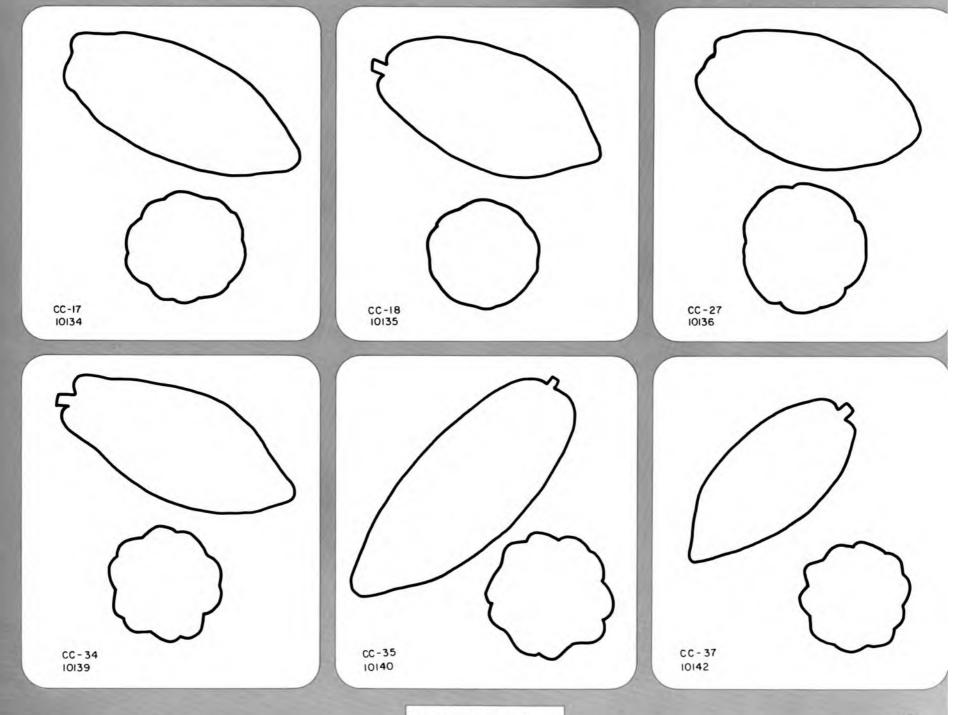
THE PARTY		A STATE OF	Gene	eral	in	/			1					Frui	t	5.750	1	Compatibility and resistance
TUR BE	Pedigree Pedigree	148	of Marie	10 10 A	THE PARTY AND ADDRESS OF THE PARTY ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS OF THE	Total State of the	- Learning	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	de la	1/2/2	7		cyan ity in	in of the state of			Reference	Notes
10462		1980	4		3115	29E8	9	7	14	3	3	2	5	3	0	22,44		
10463		1980	14		7E8	29E8	0	0	0	0	3	3	3	1			1 - R	1
10470	MATINA X CRICLLO	19H0	4	1127	705	29BJ	2	-	0	0.	2	5	7	0	-	17 3	1993	
10476 -	MATINA X CRIDLLO	1580	4		4118	2983	0	u	0	0.	2	2	4					
10485		1980	4	1	808	29C4	0	0	0	0	2	1	3	3	+	43		
10503		1980	4		807	3008	9	9	4	3	2	2	5	3				
10505	THE PERSON NAMED IN	1,700	4		807	350B	2	0	0	0	2	2	5	B				
10513		1980	4		807	DUEN	0	_0	0	0	5	6	9	0				
10528		1980	14		906	2904	9	9	5	3	5	2	5	2				
10539					8E7													
10556	THE STREET	1980	N.	3	9117	28E7	9	9	6	5	3	2	5	3	16	71103	100	1.000
10561		1980	4	3	807	30E8	0	a	-0	0	7)	5	5	2				
10580		1980	14	1	707	29118	9	9	5	4	-3	2	3	0				
10502		1980	ų	1	506	2907	0	0	0	0	4	3	5	3.				
12871	THE PARTY OF THE P	1980	14	5	706	2904	0	0	0	a	3	5	57	7	133	1000	SHIN	
12872		1780	4	5	YE?	24EB	2	9	7	5	34	3	3	1				
12873		1980	4		708	30C6	0	0	Ò	0	4	3	14	3				
12874		1980	4		808	30E8	0	0	0	0	3	3	14	3				
12875	CONTRACTOR OF STREET	1980	18	2	707	2804	9	7	11	3	5	15	5	2	161	F15553	SIMP	

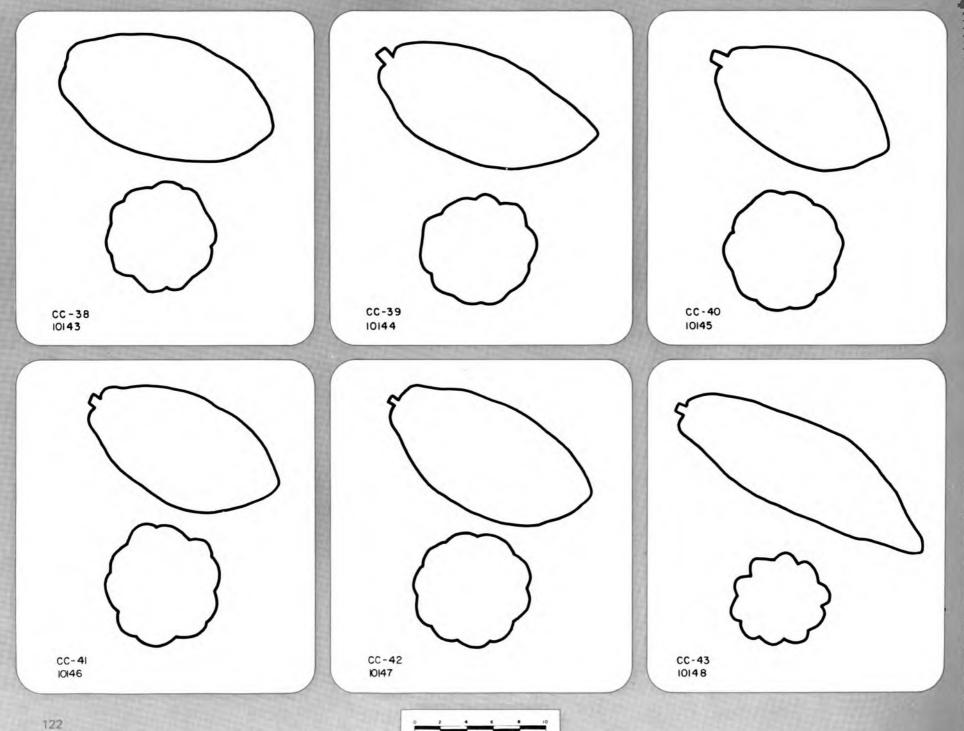
This flap can be unfolded and allows comparison of individual clonal data with the overall magnitudes

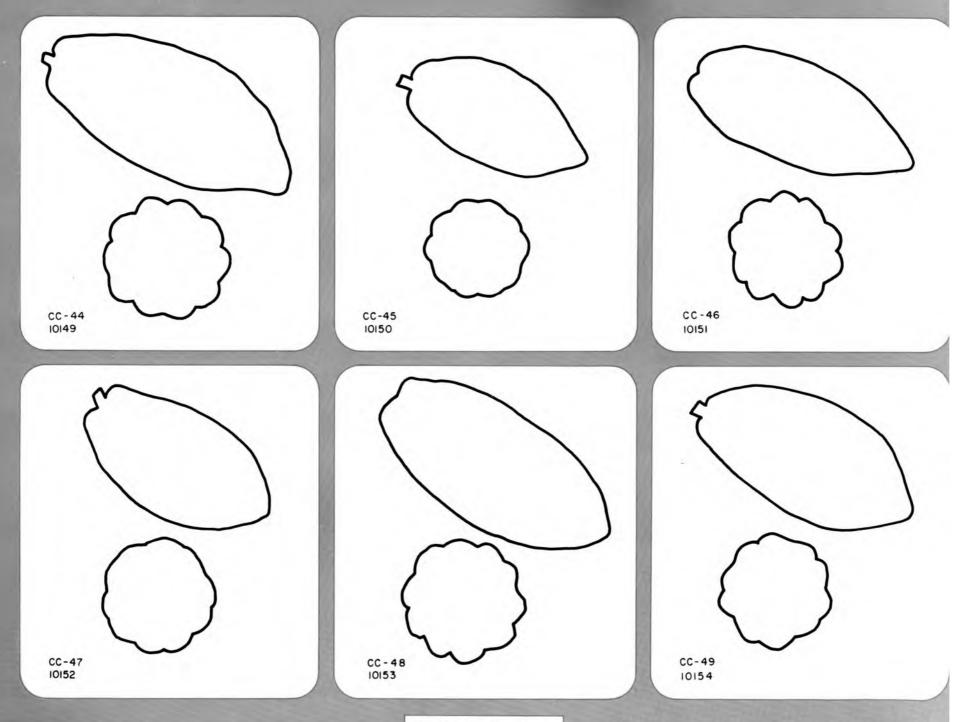
DRAWINGS

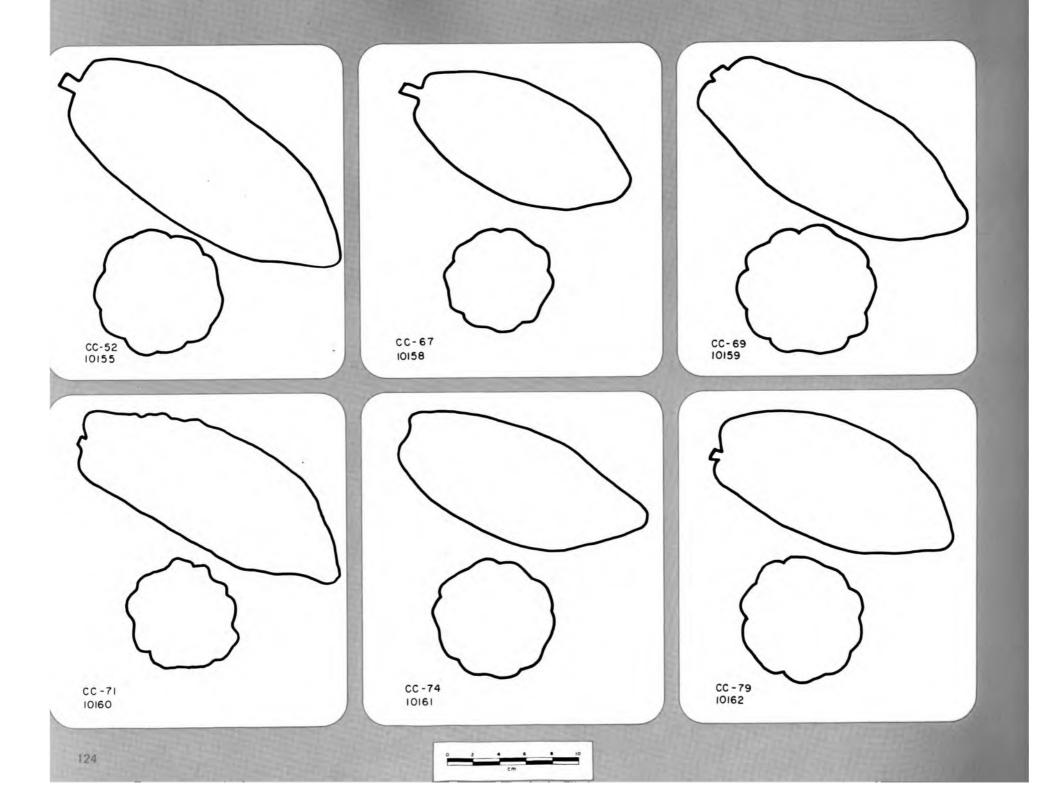


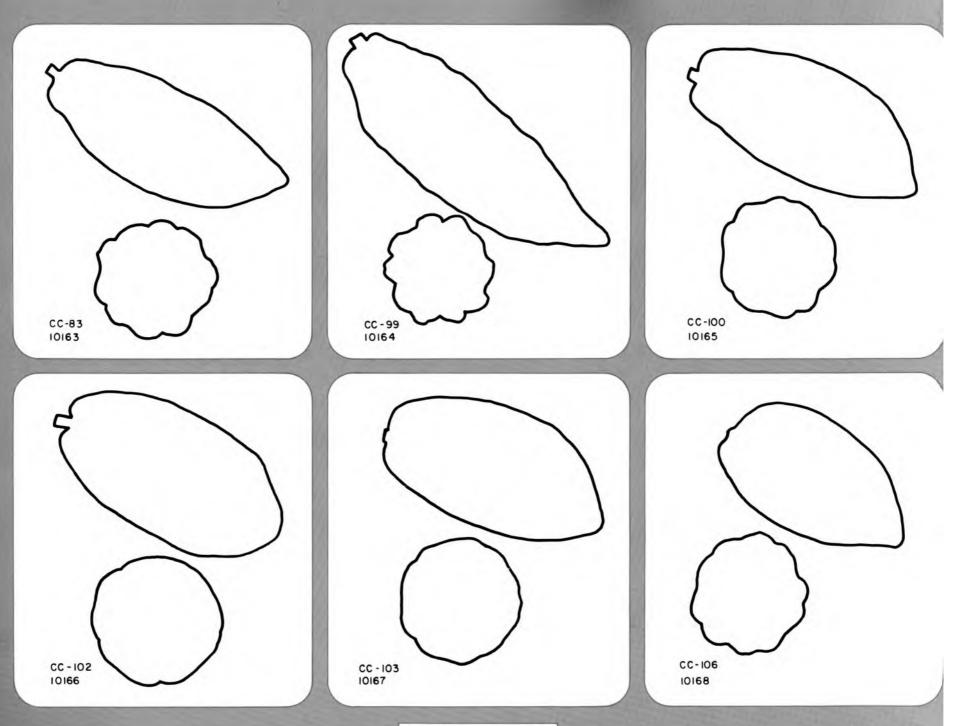




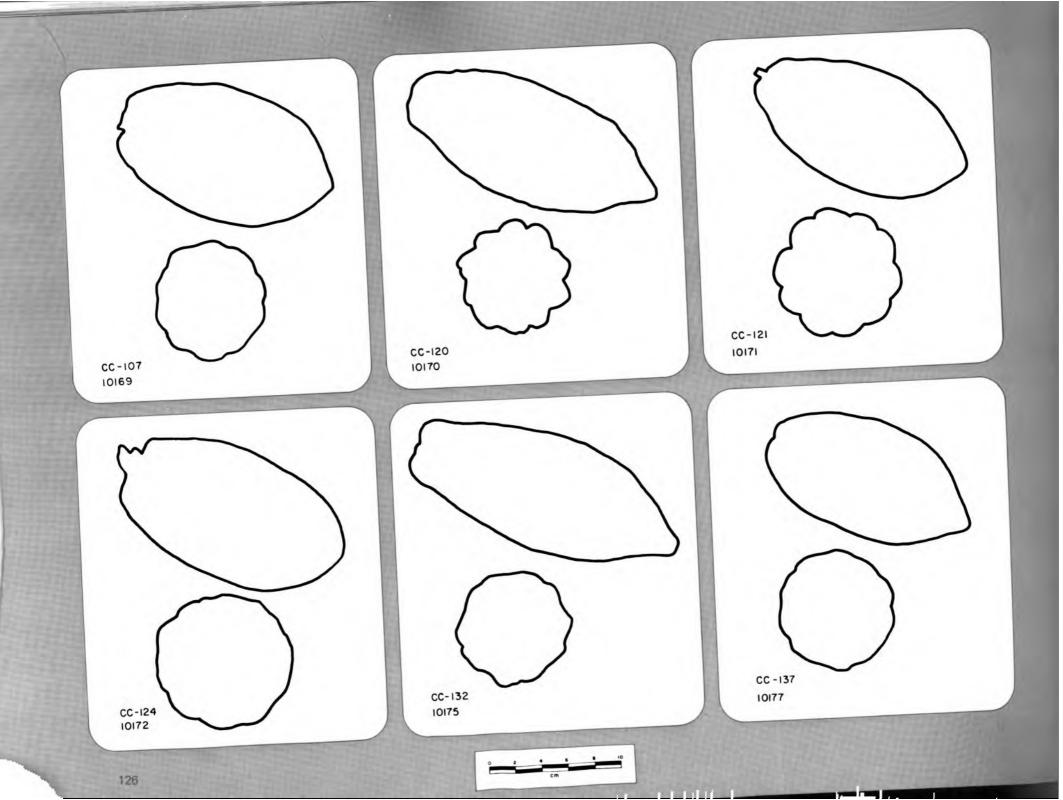


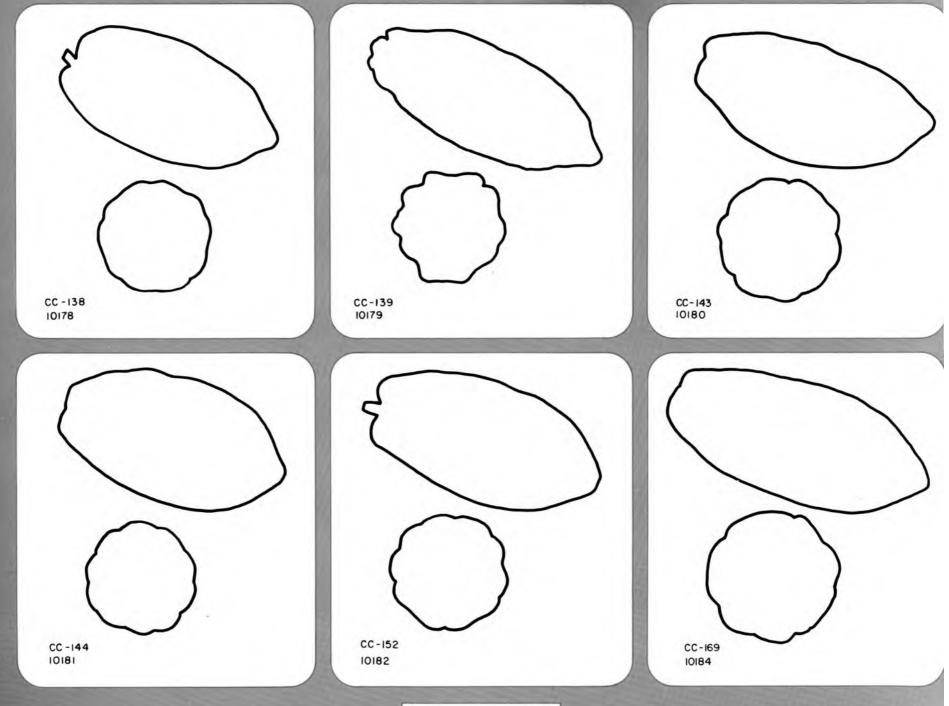


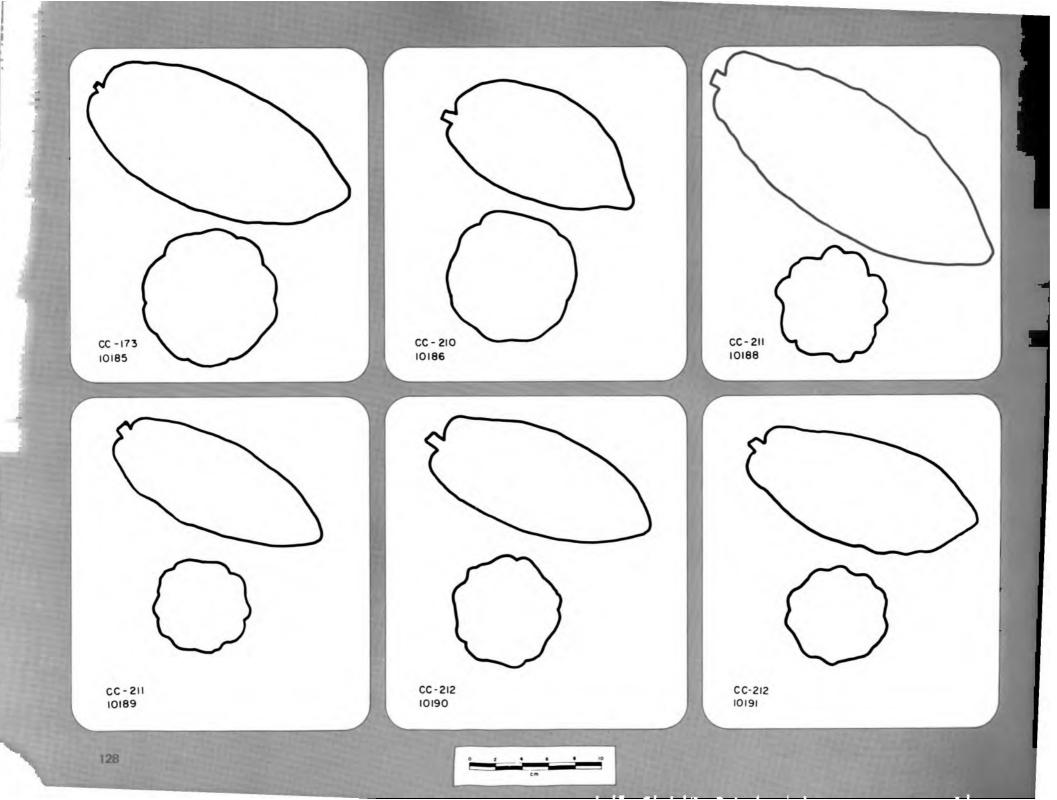


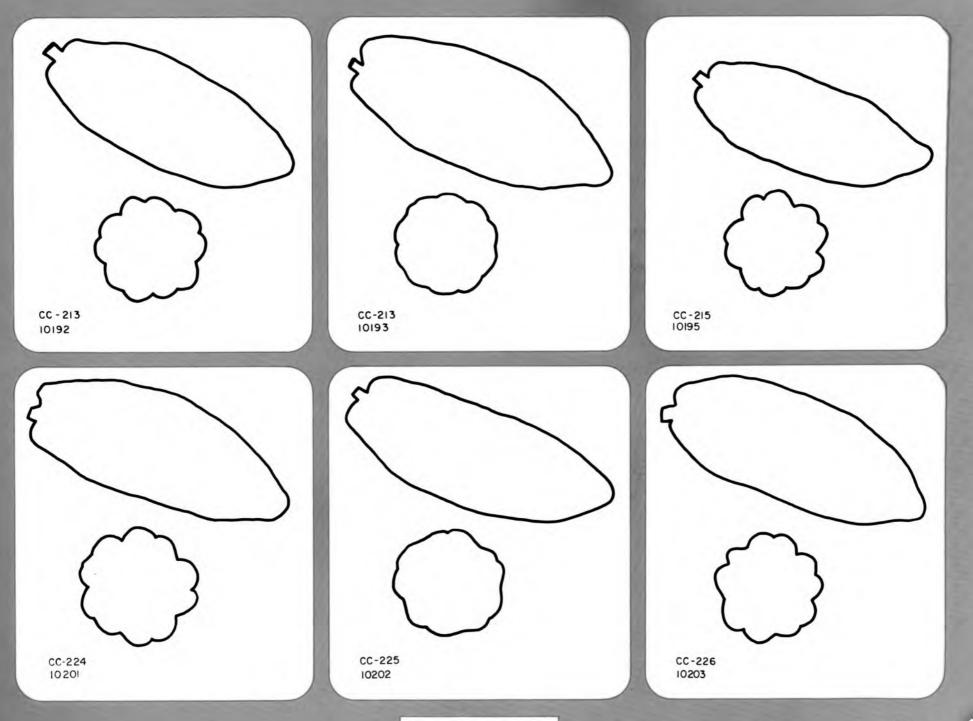


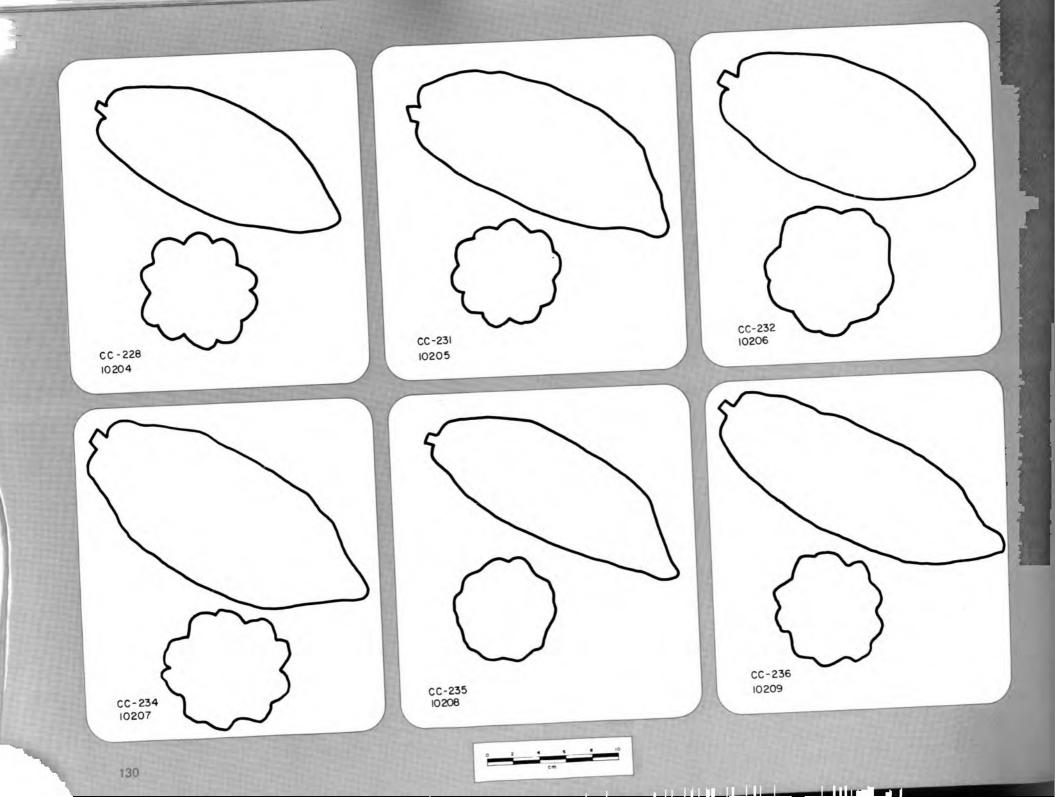


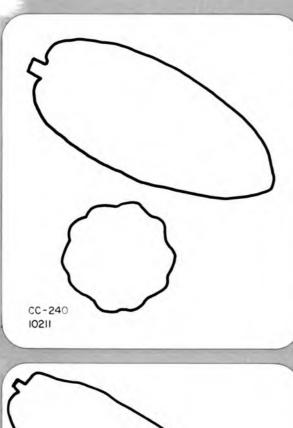


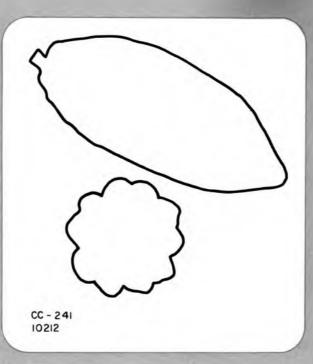


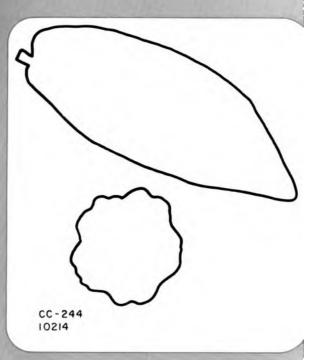


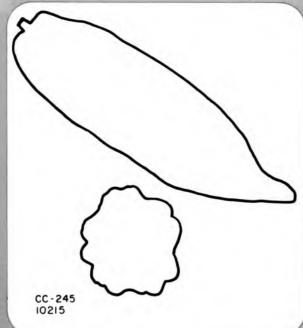


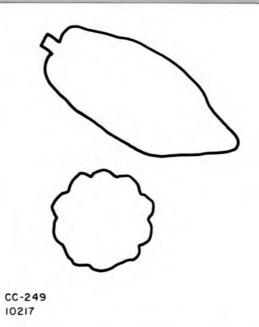


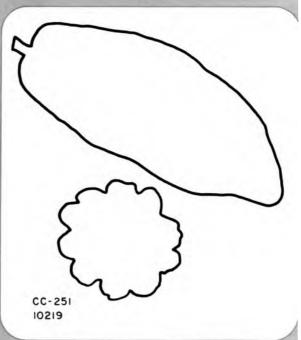


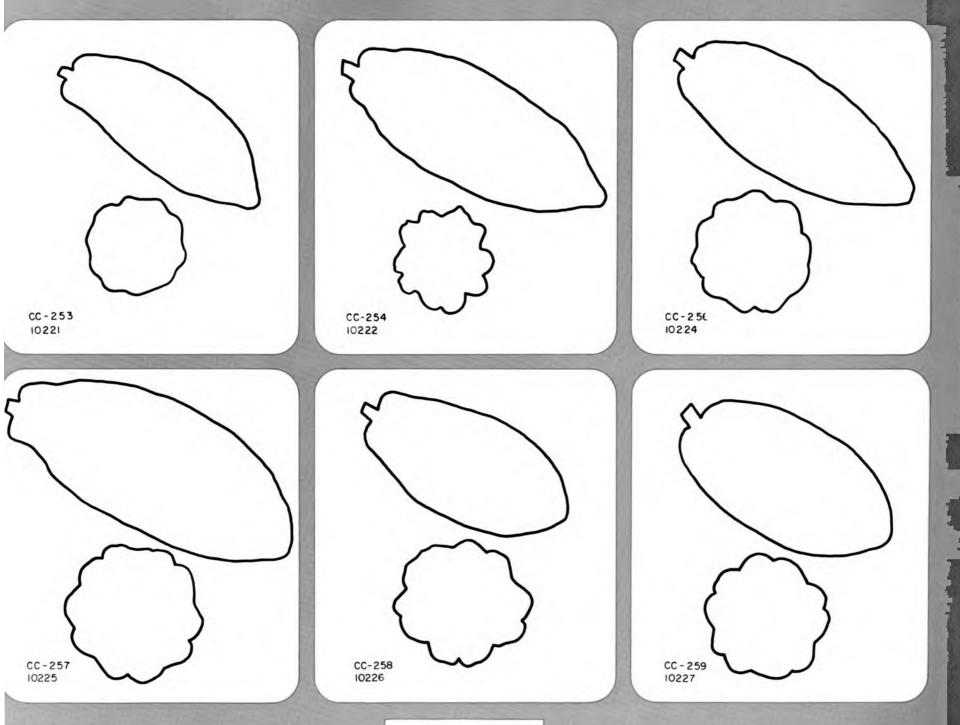


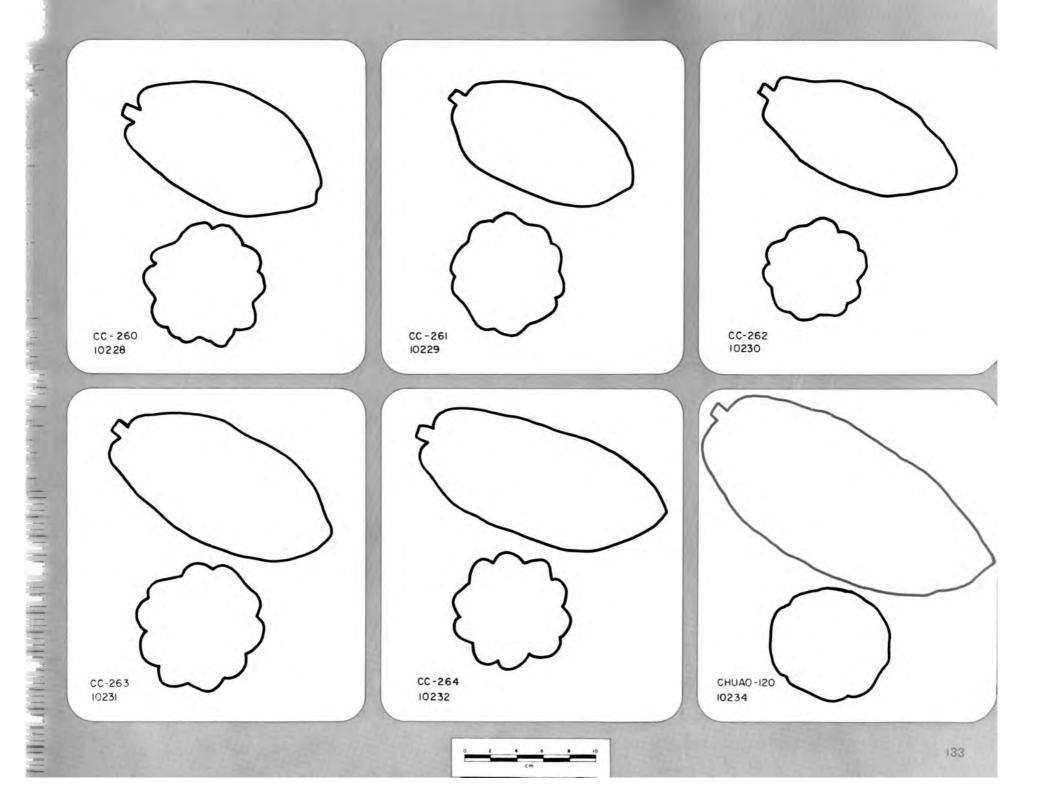


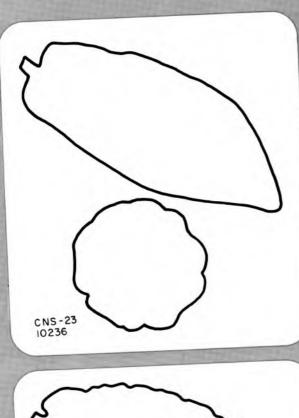


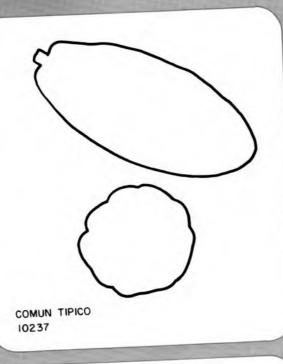


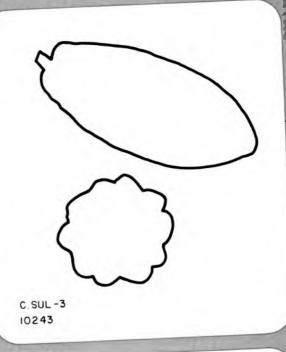


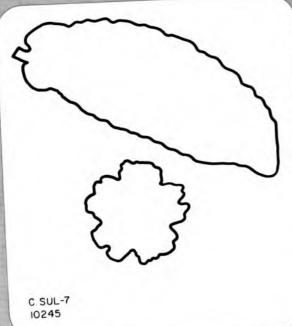




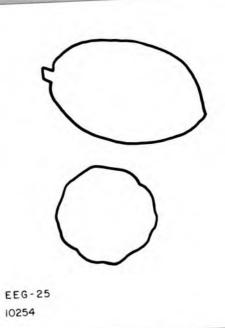


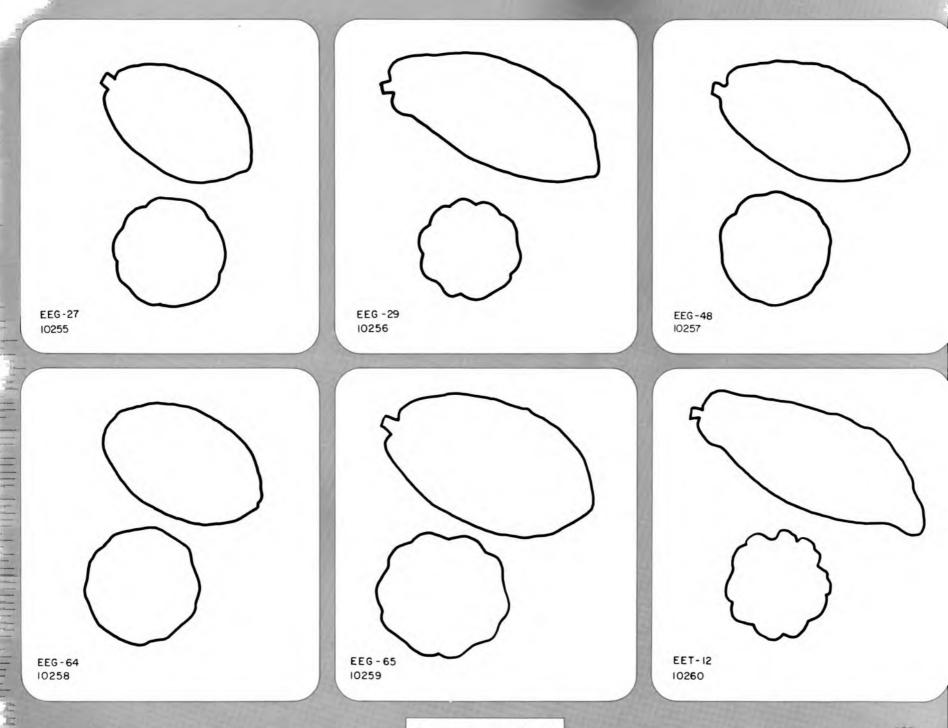


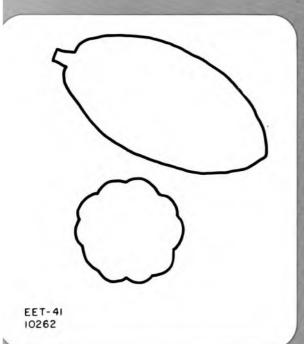


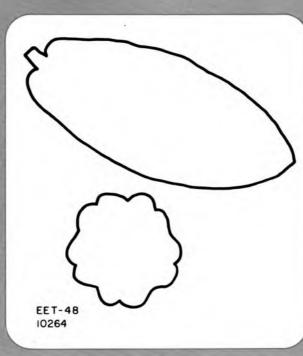


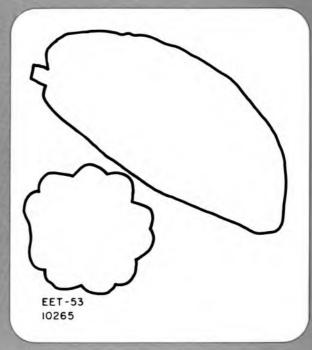


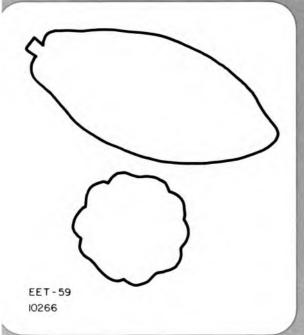


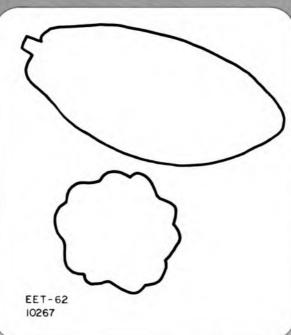


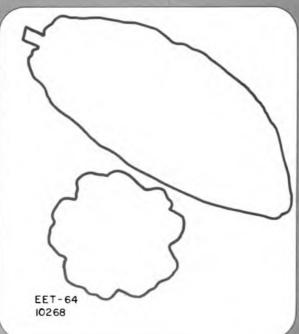


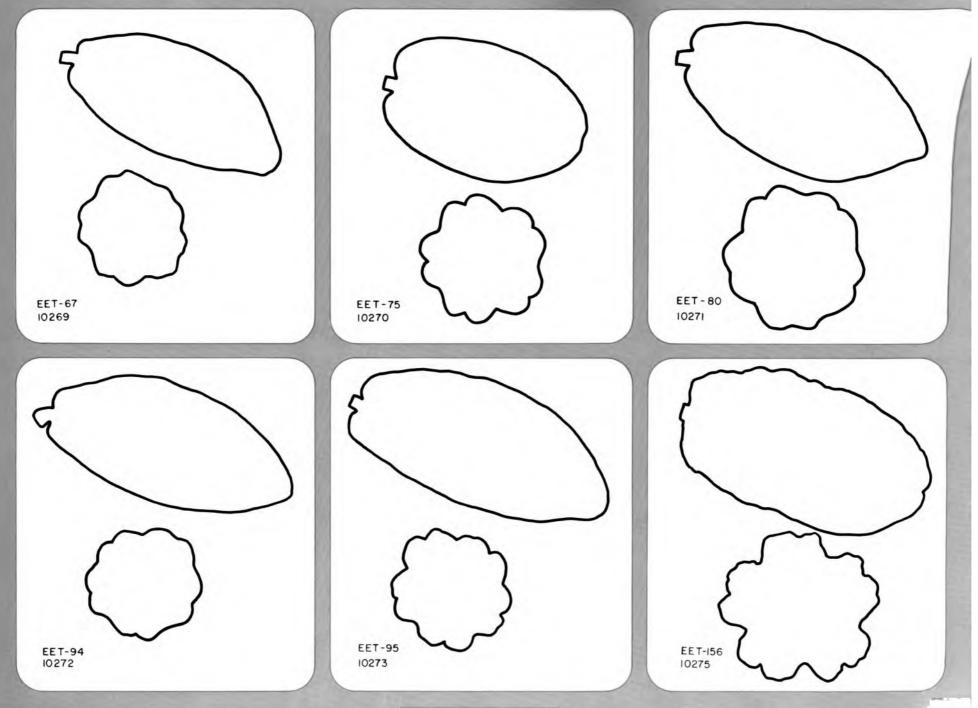


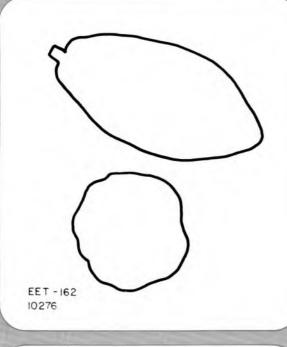


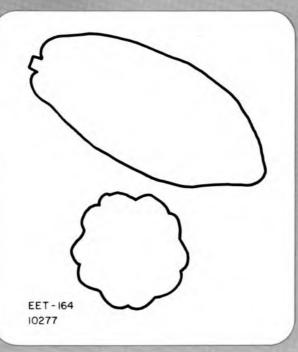


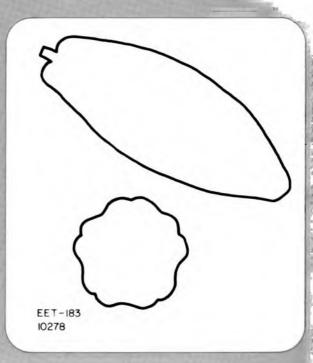


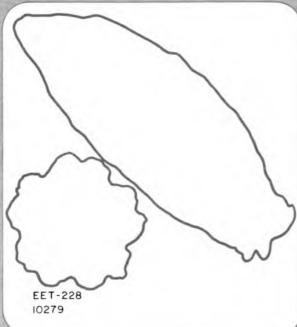


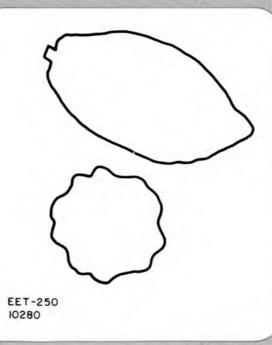


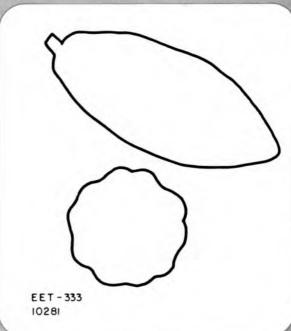


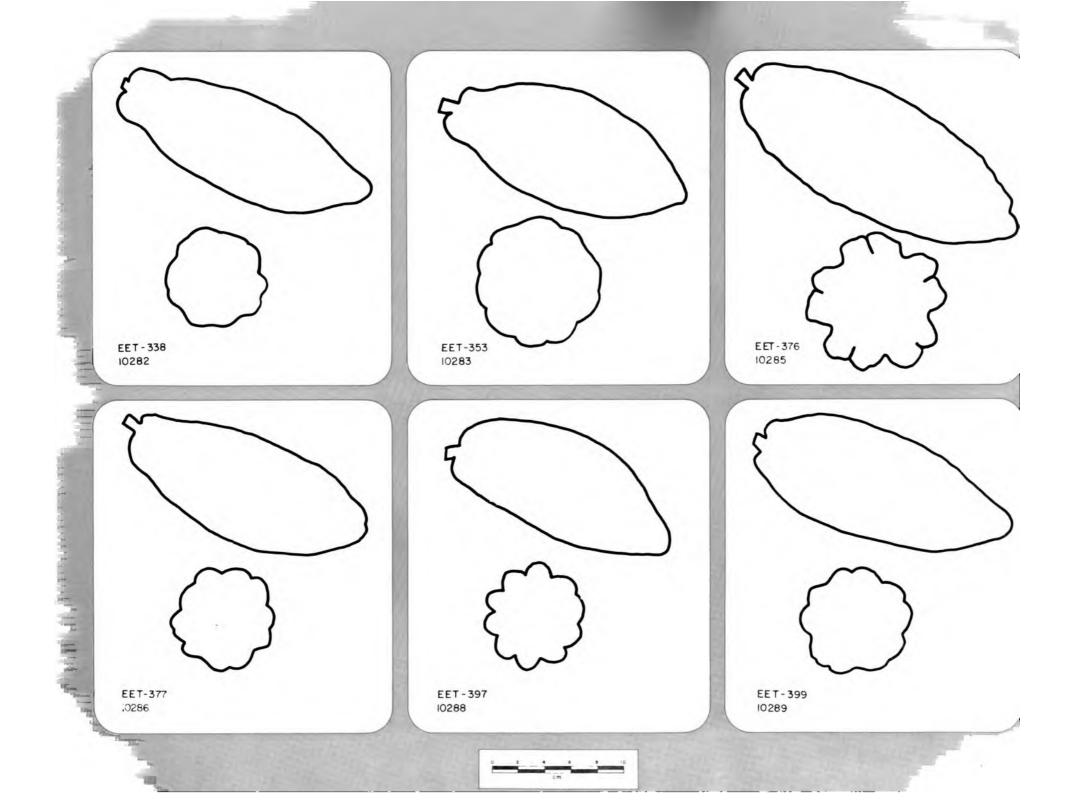


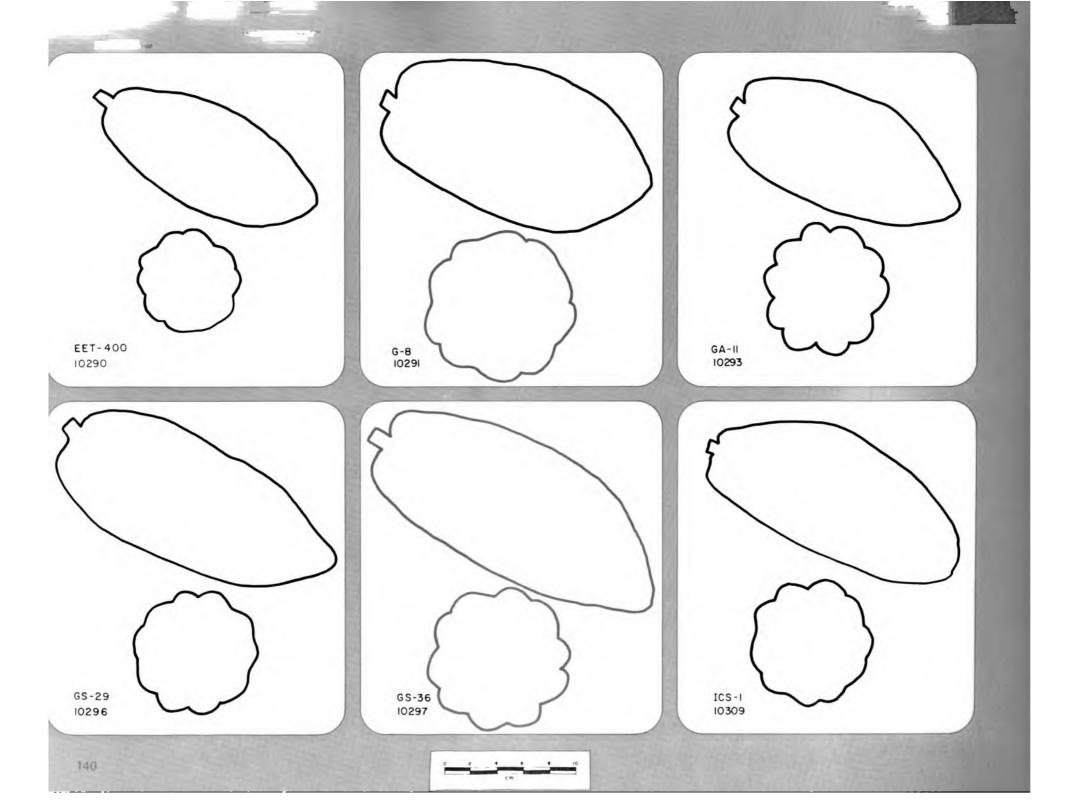


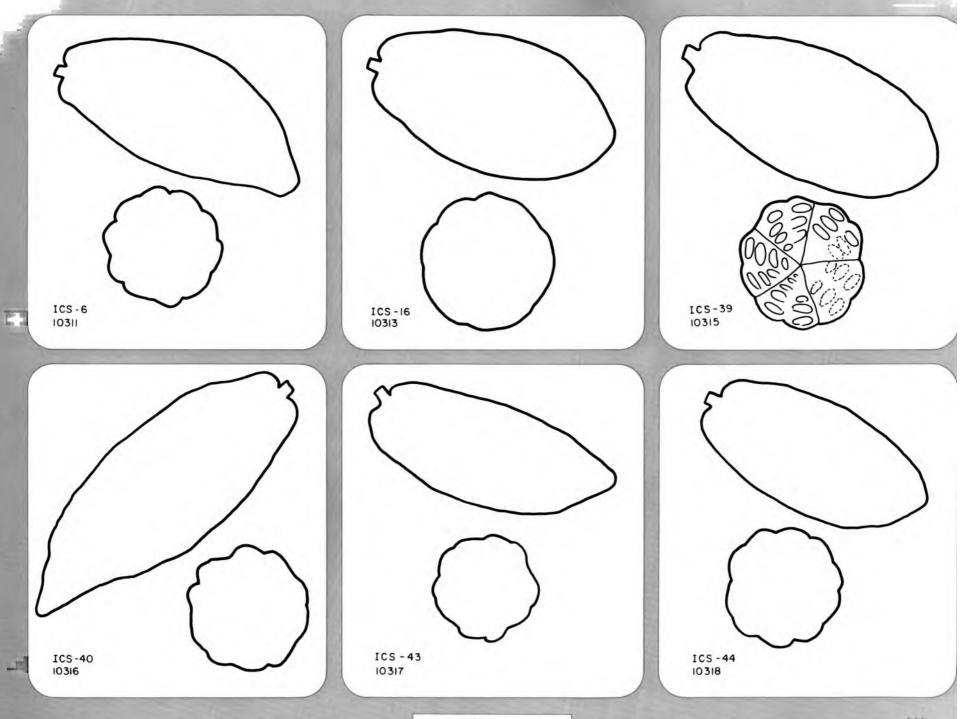


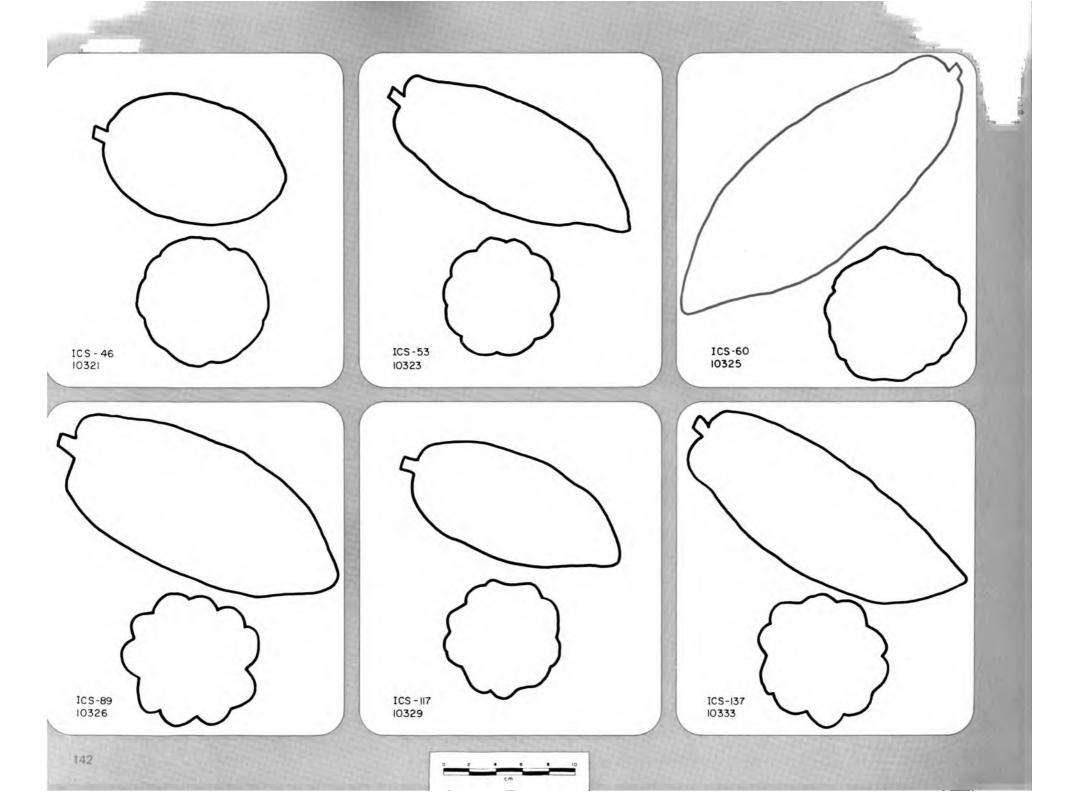


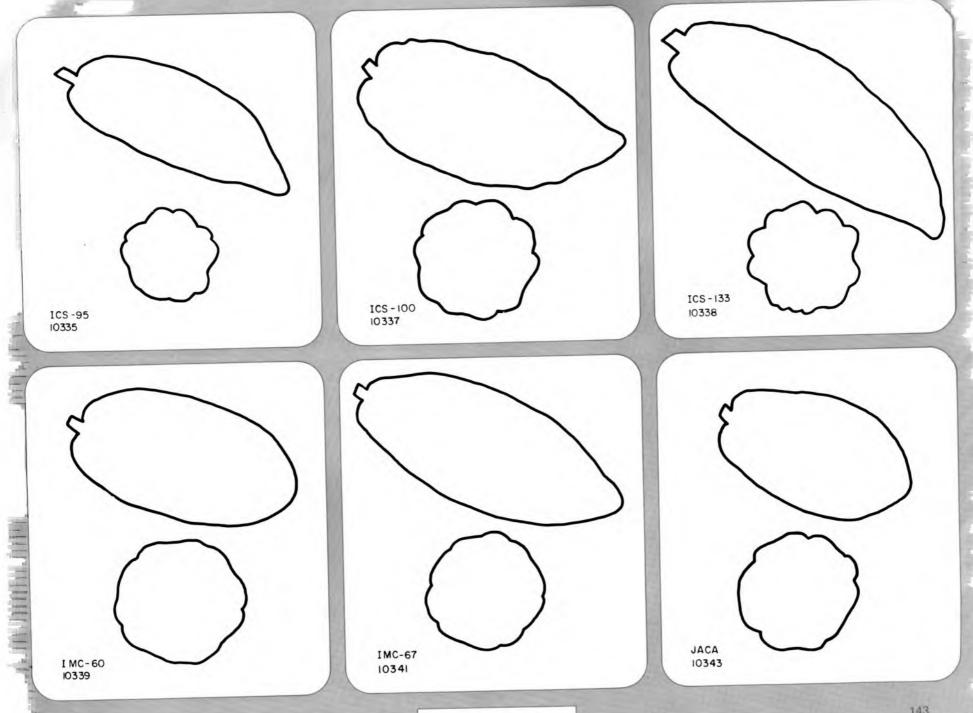


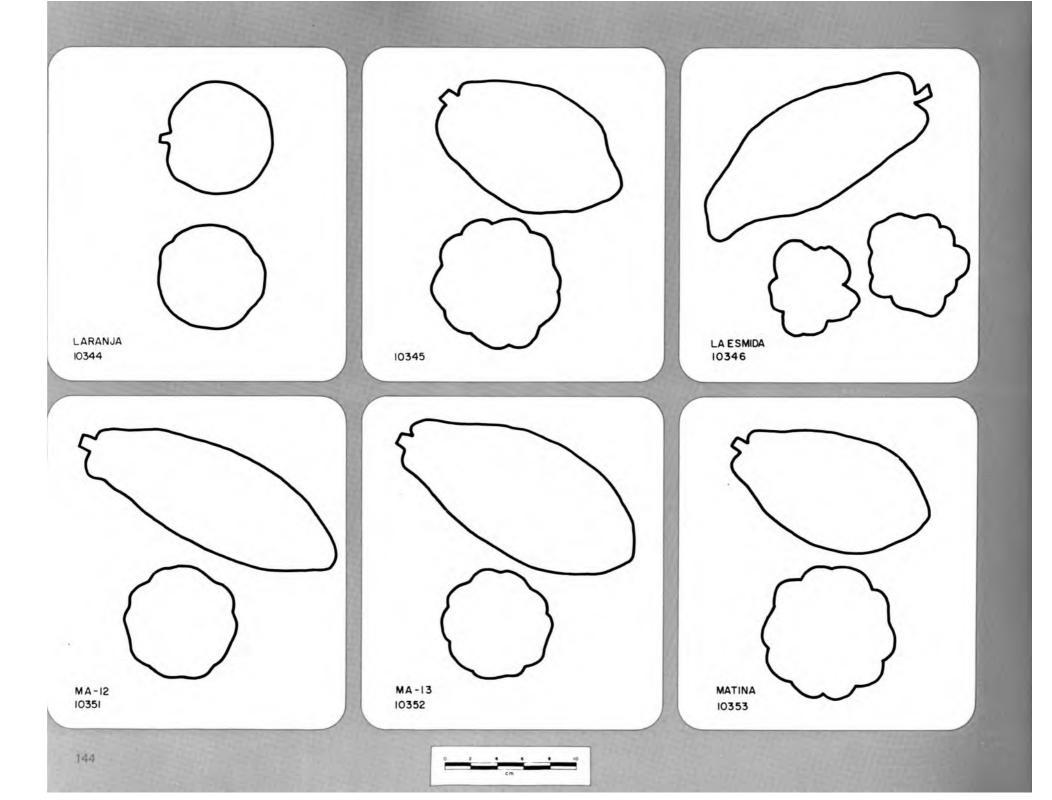


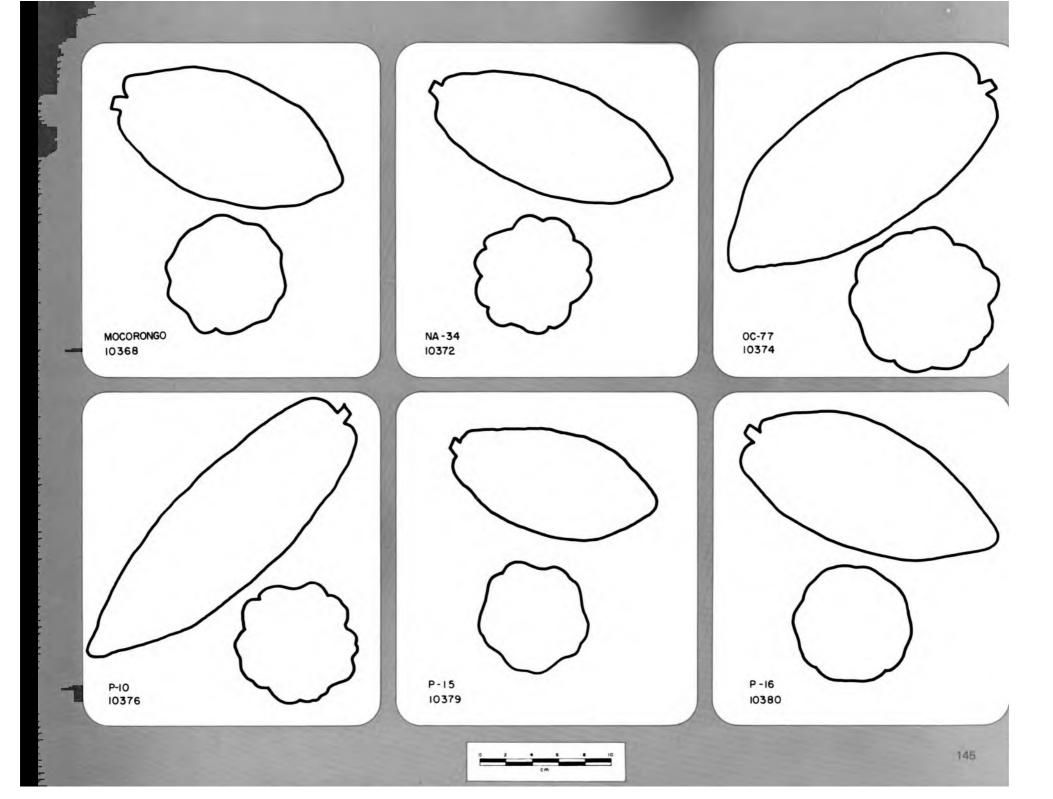


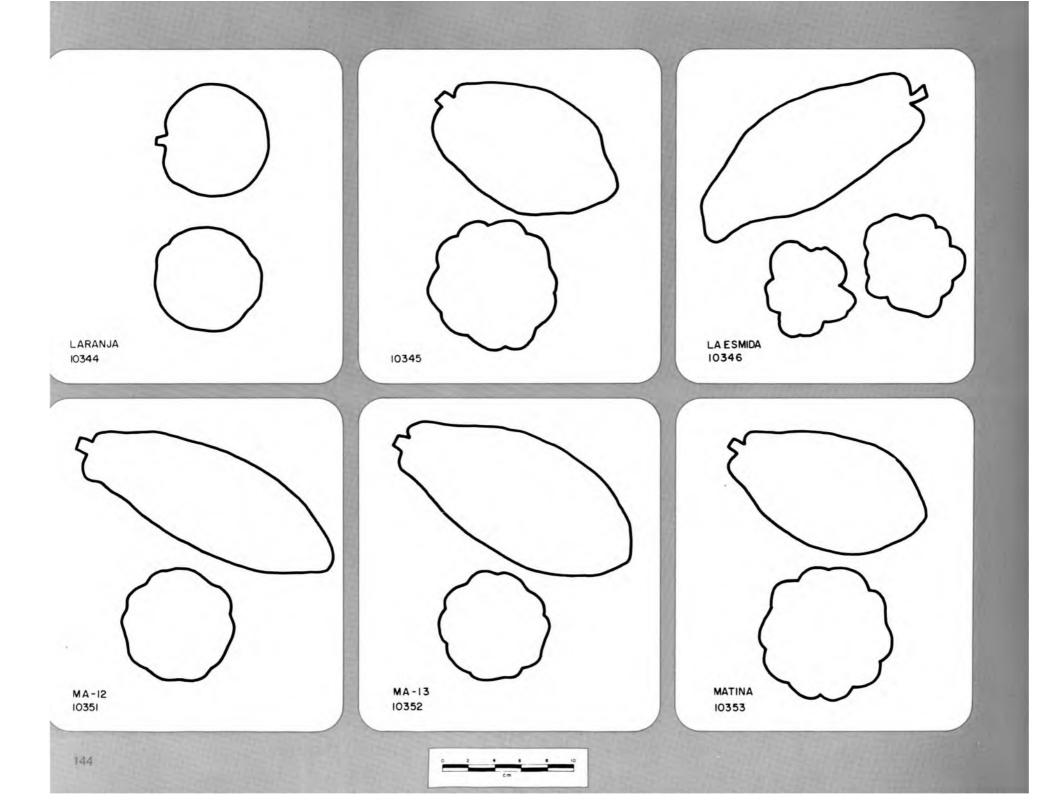


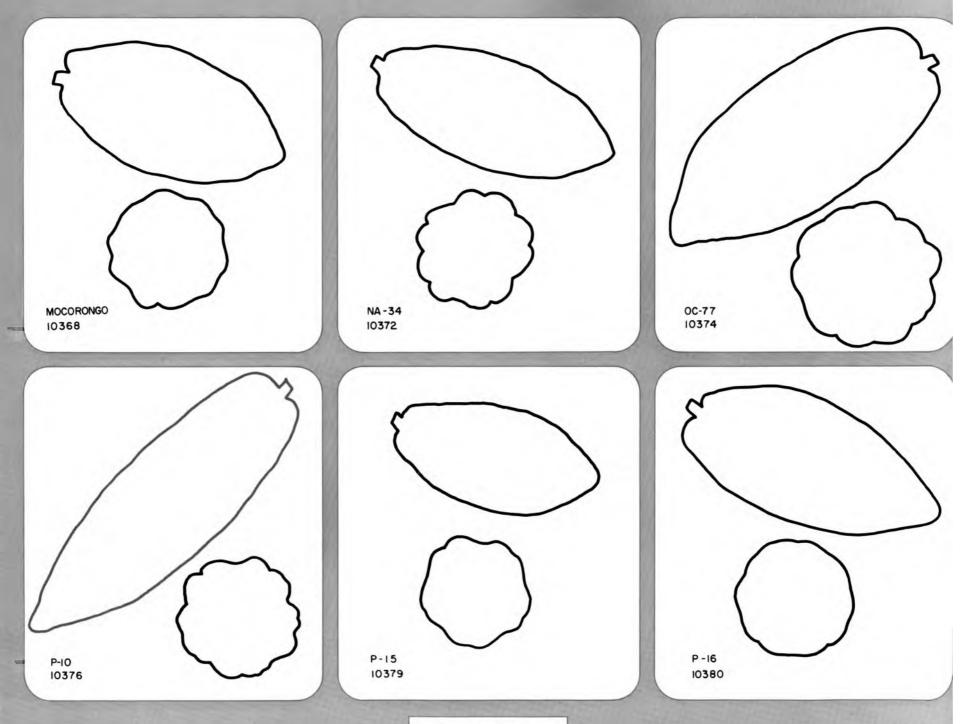


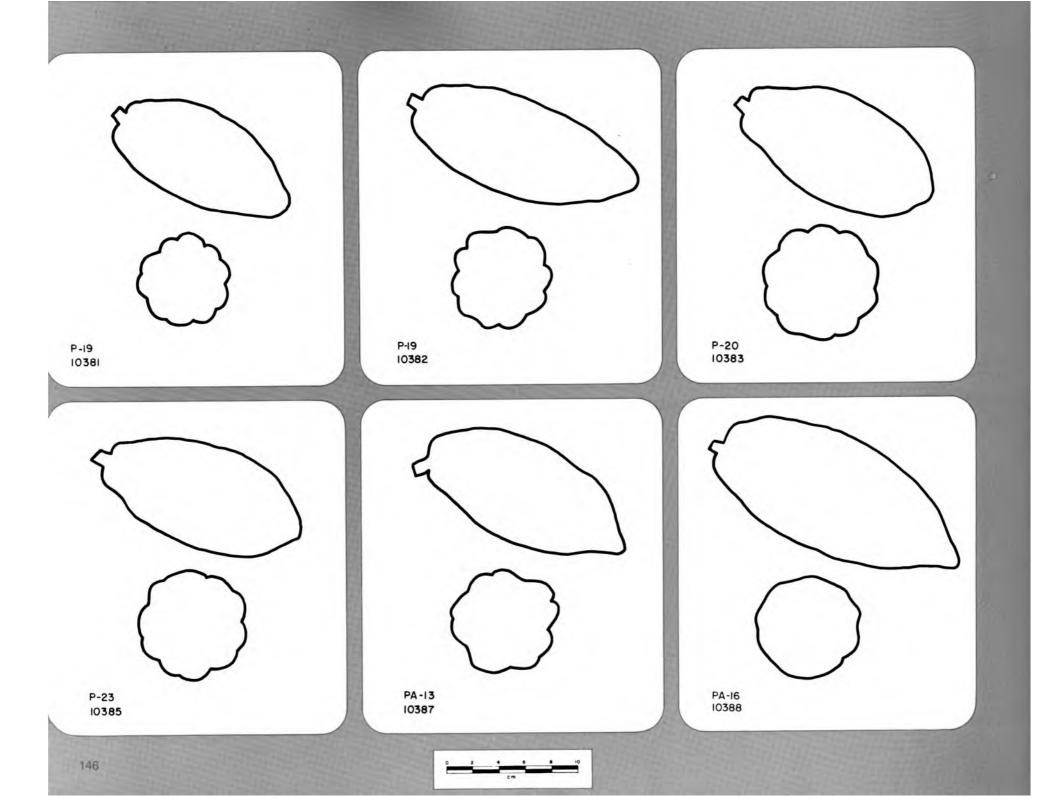


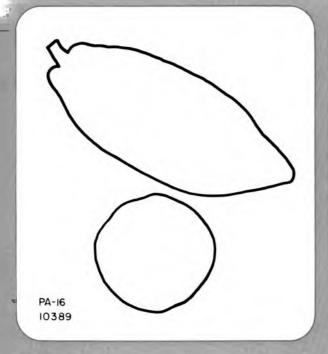


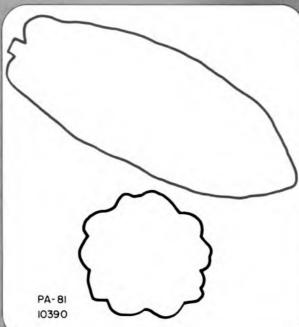


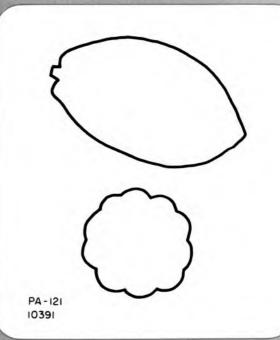


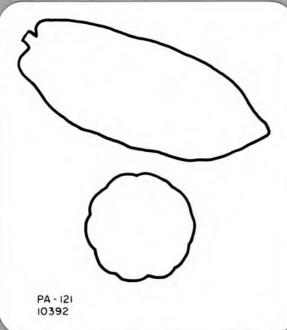


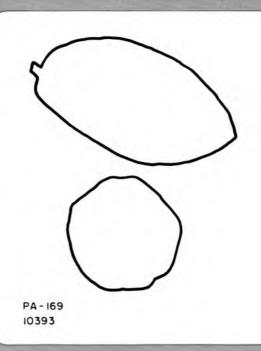


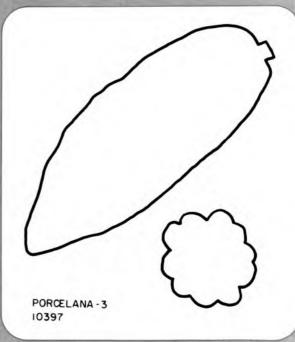


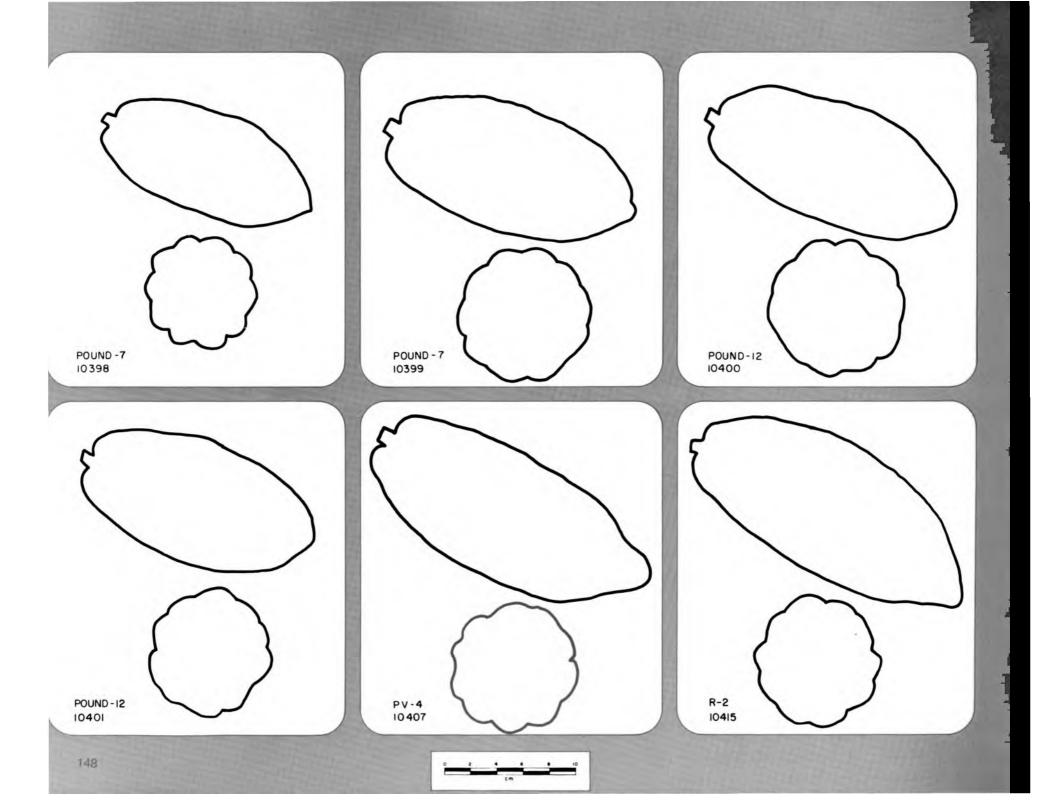


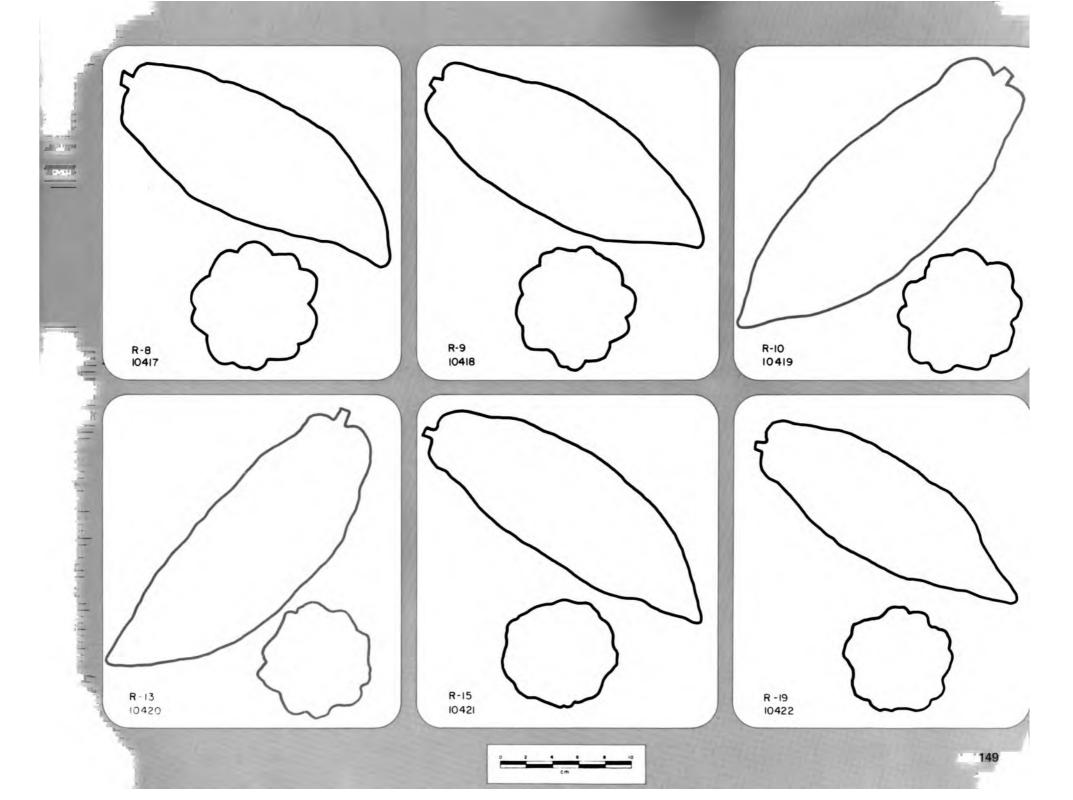


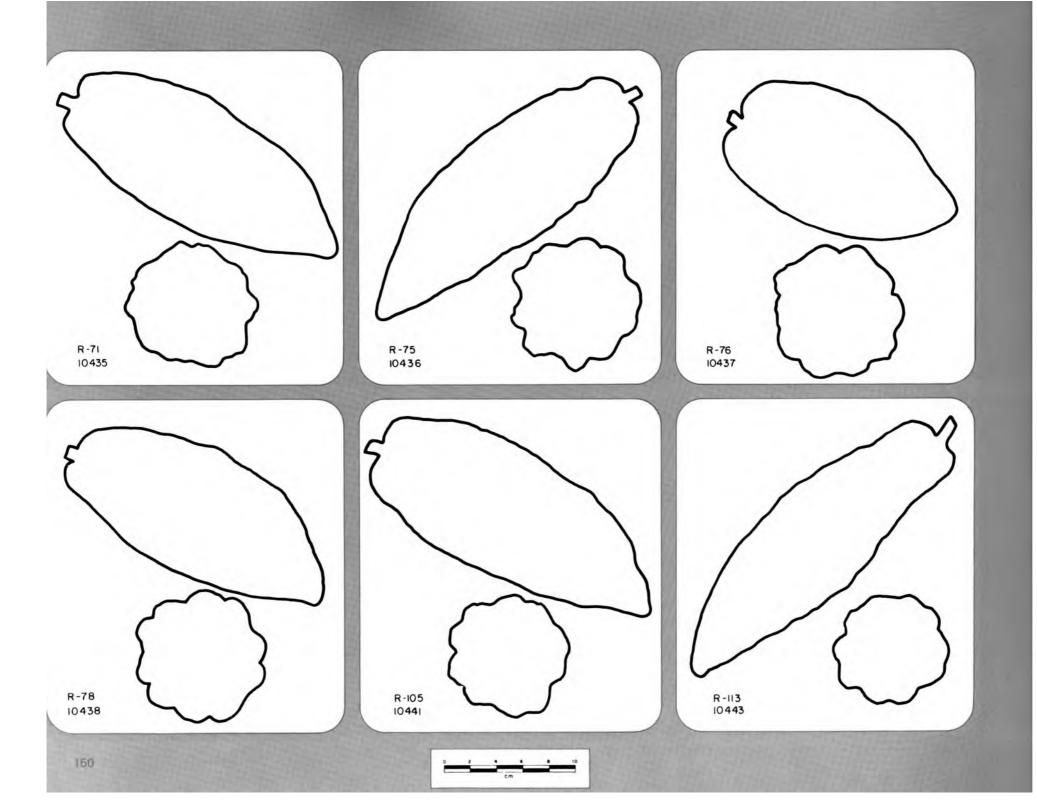


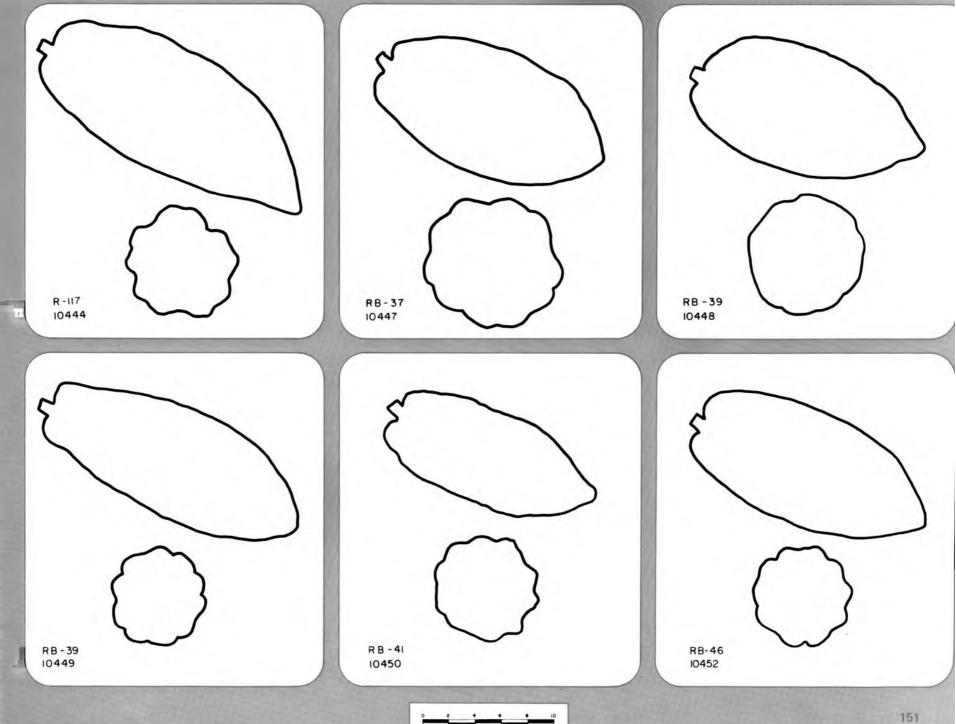


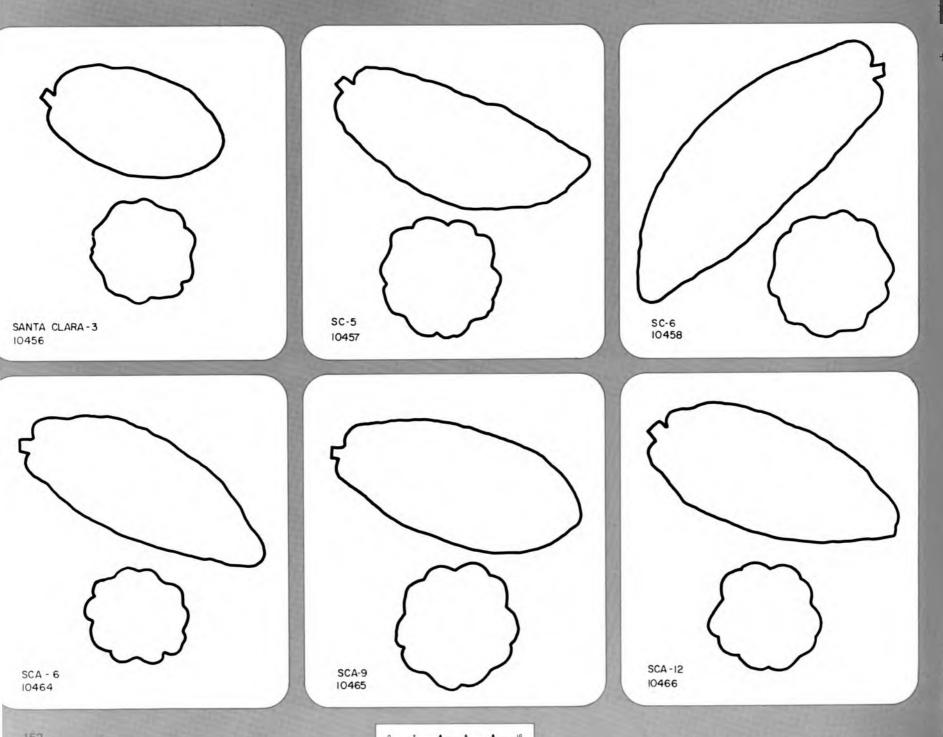


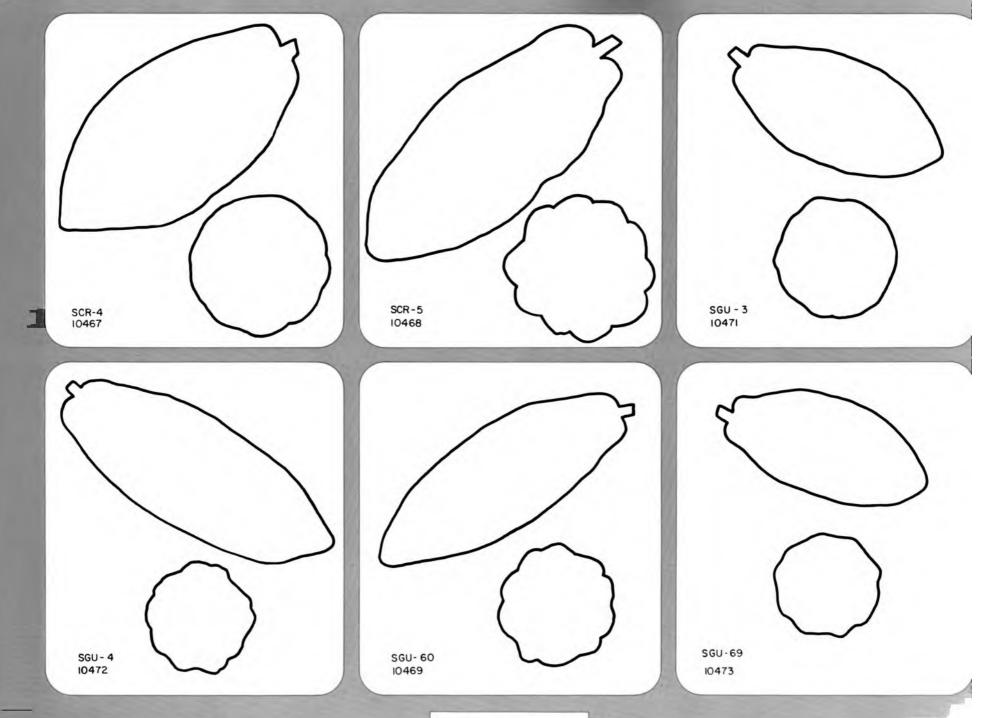


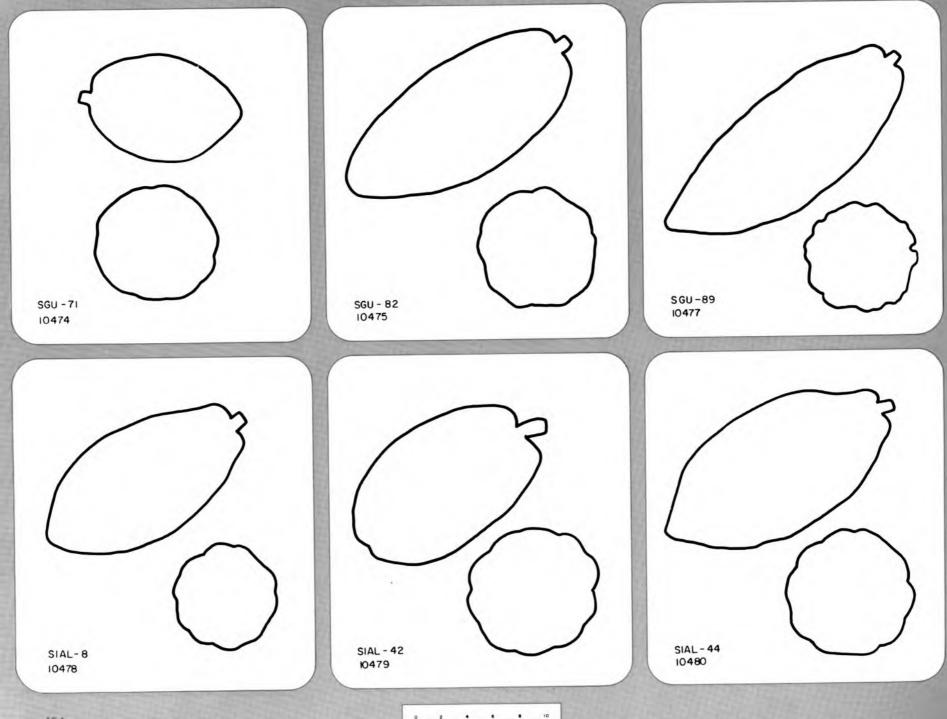


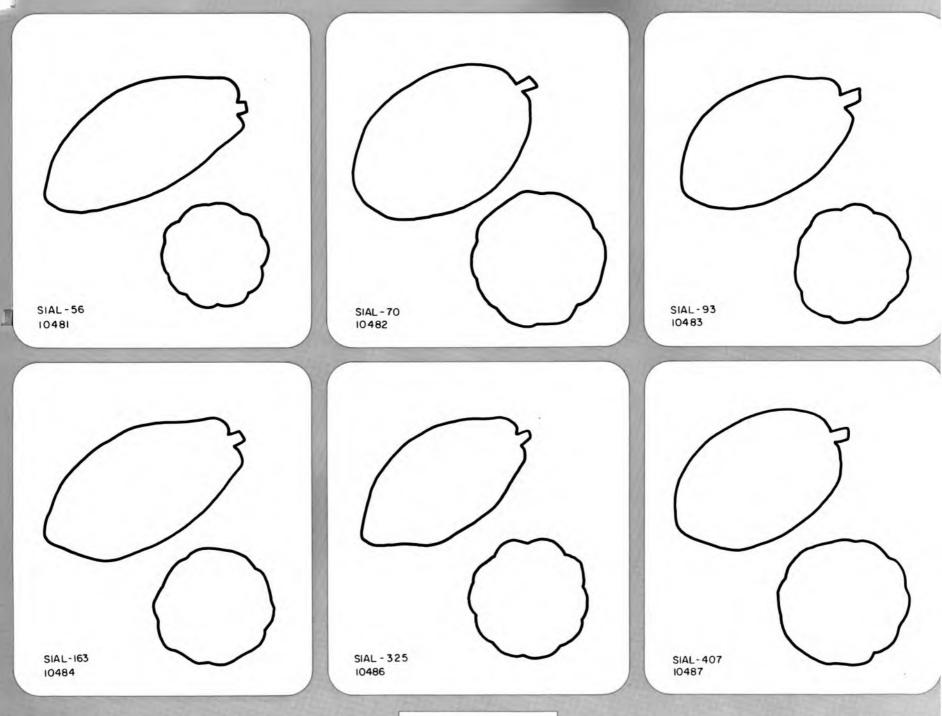


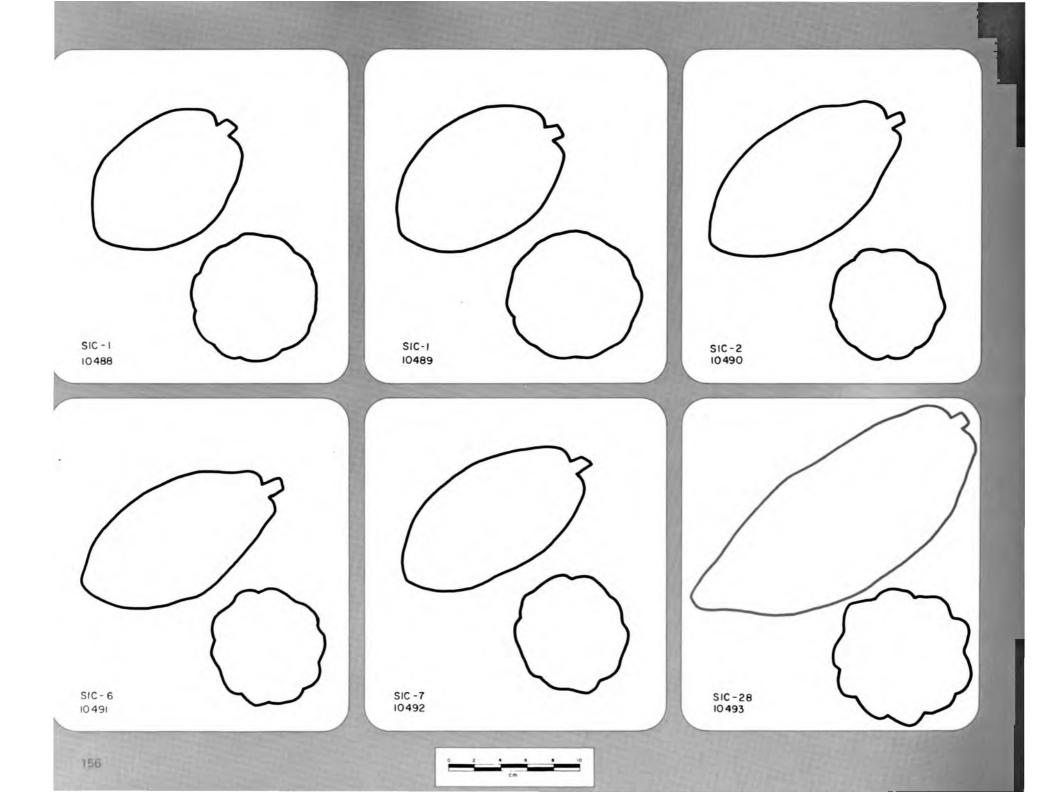


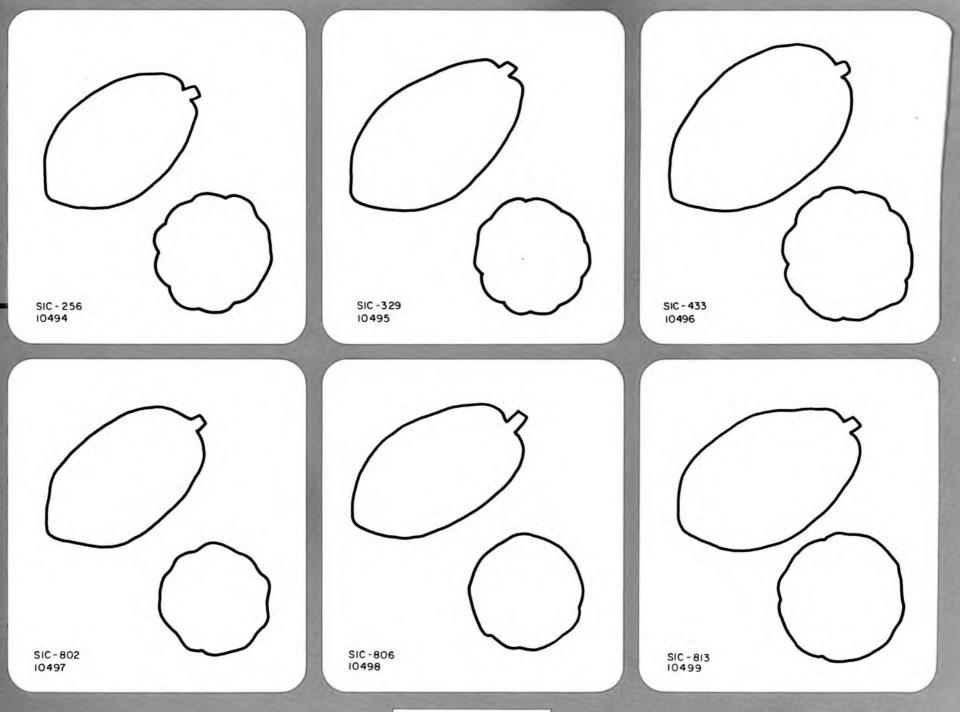


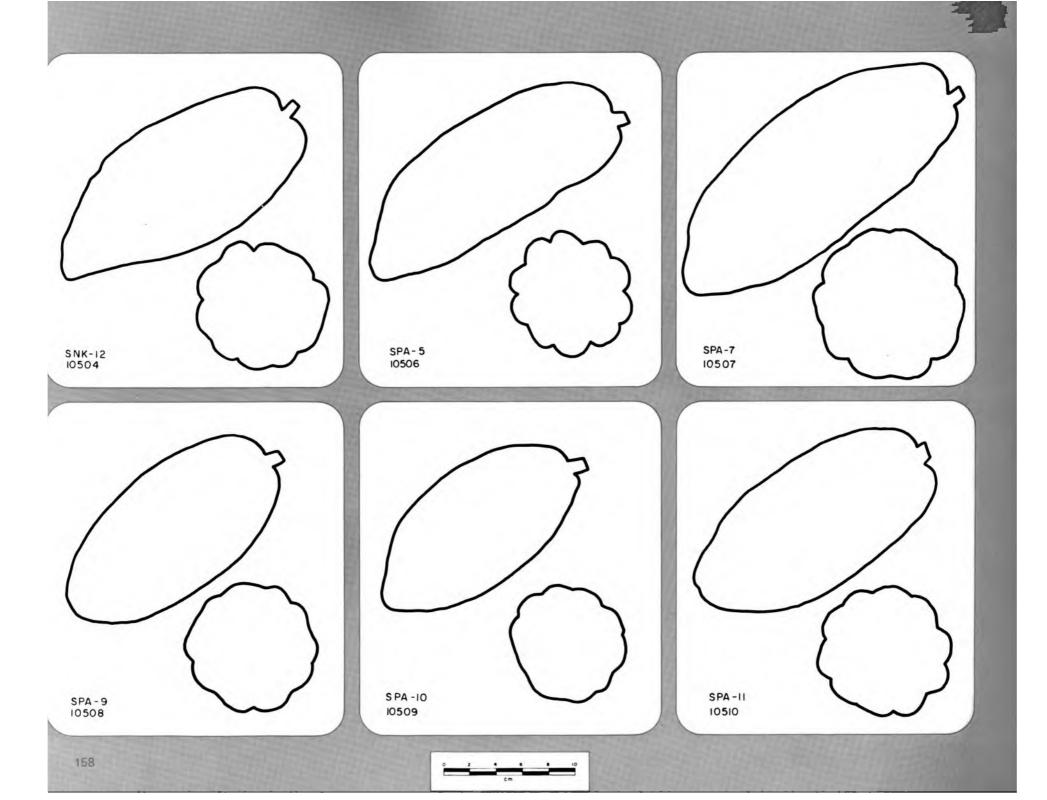


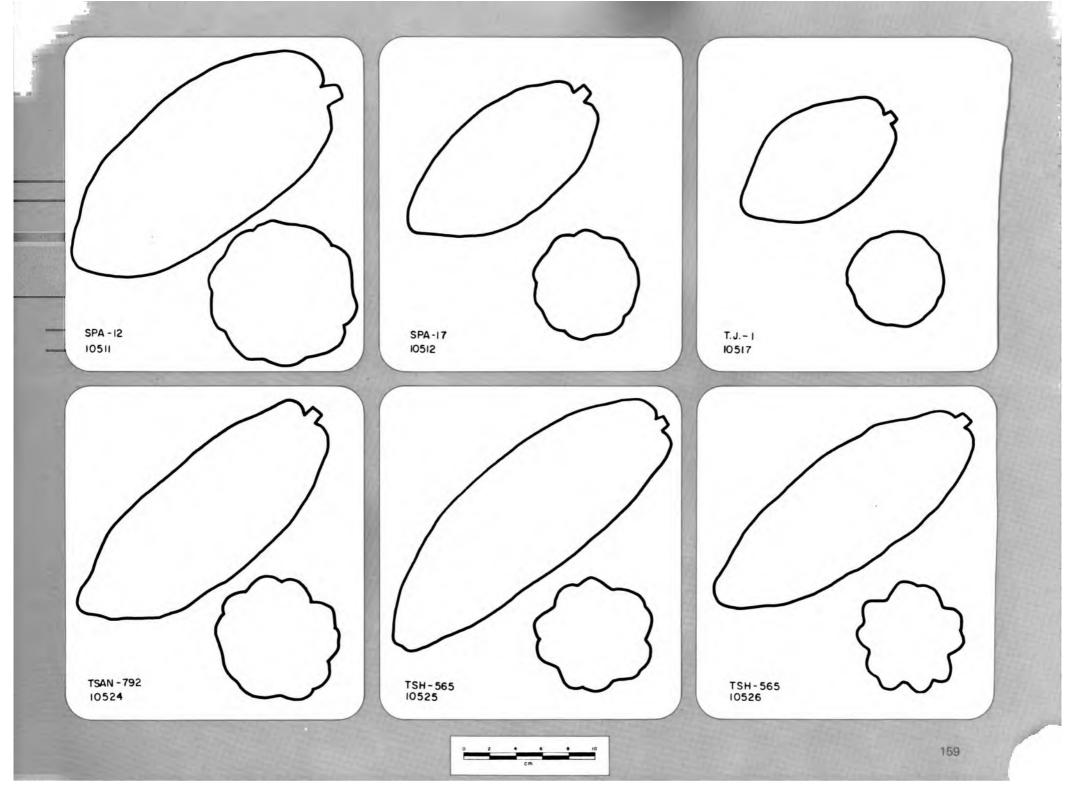


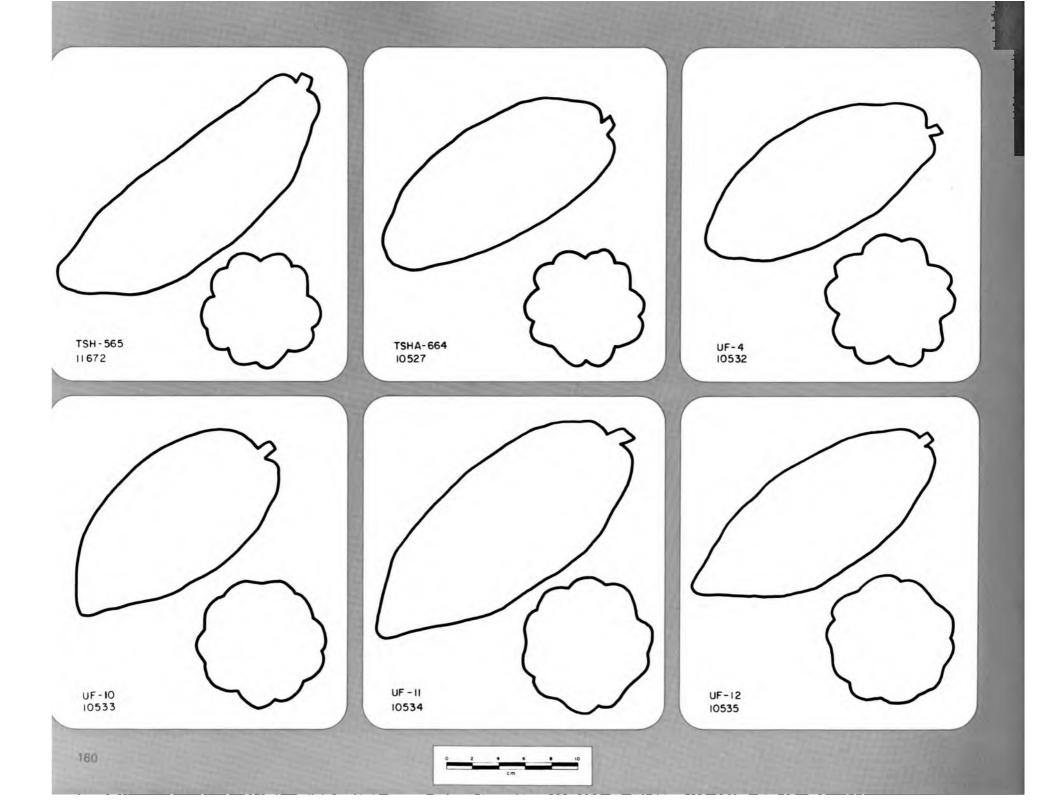


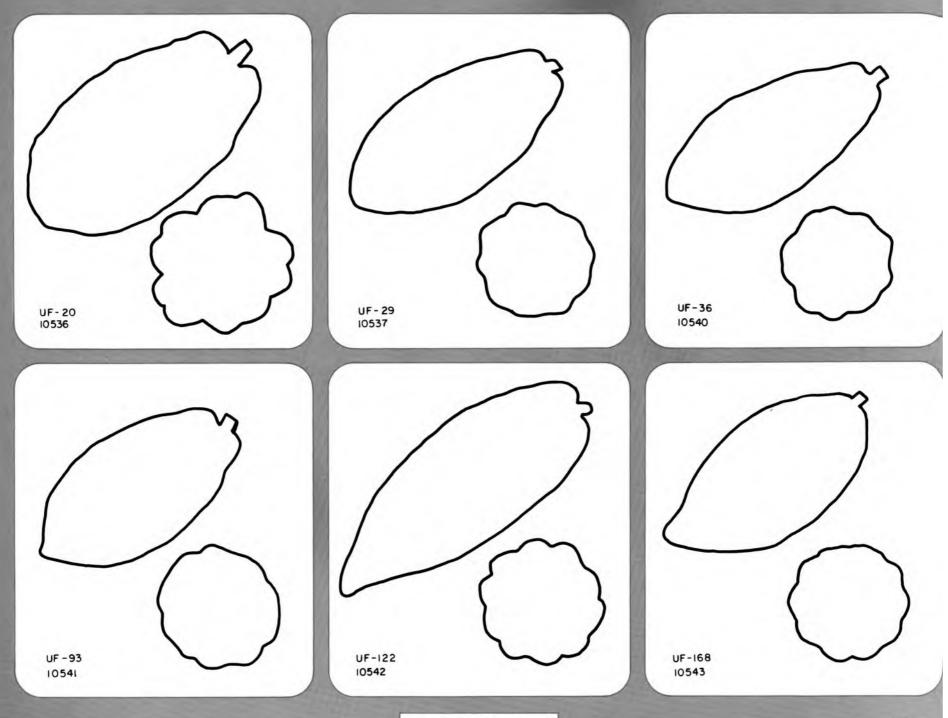


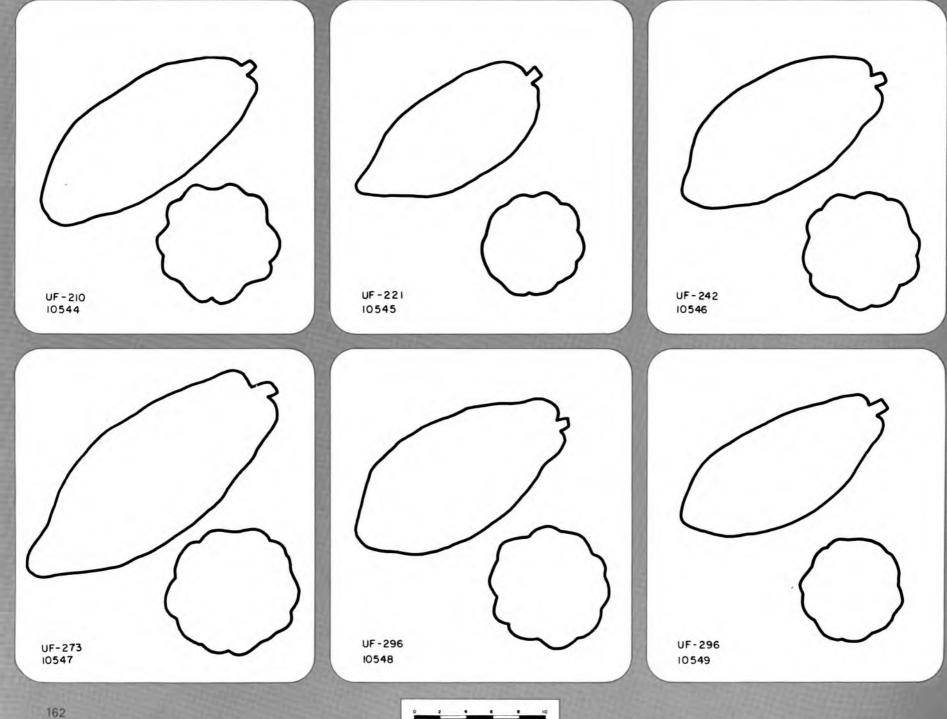


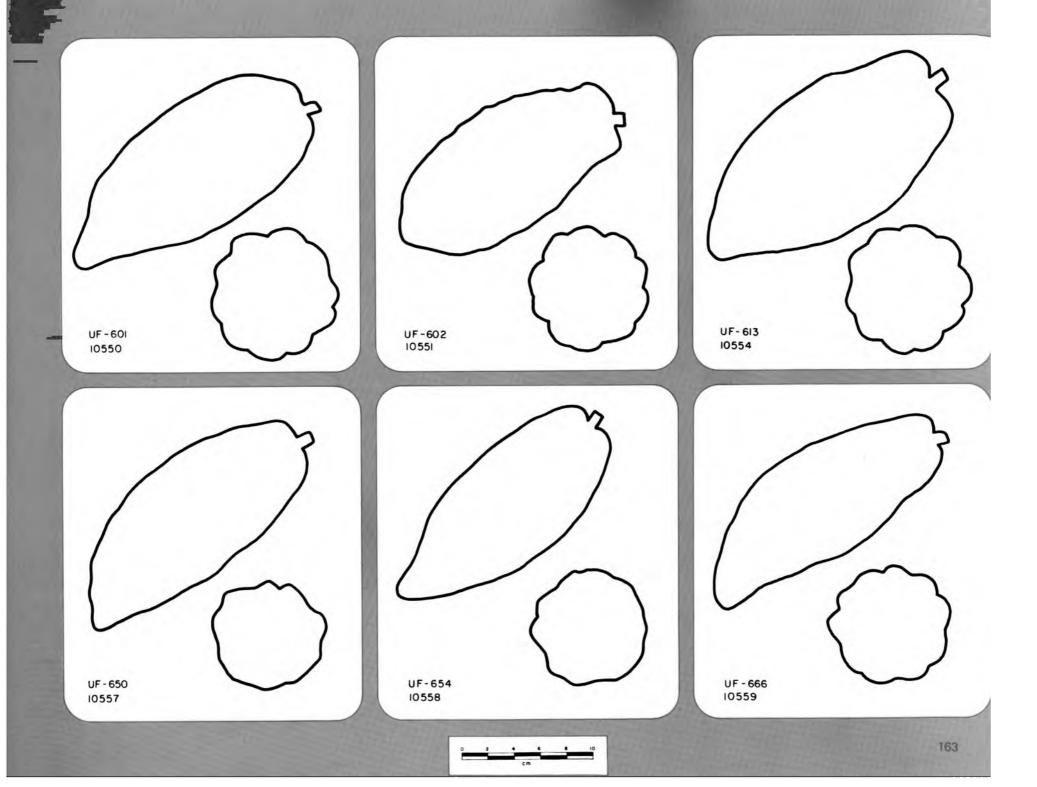


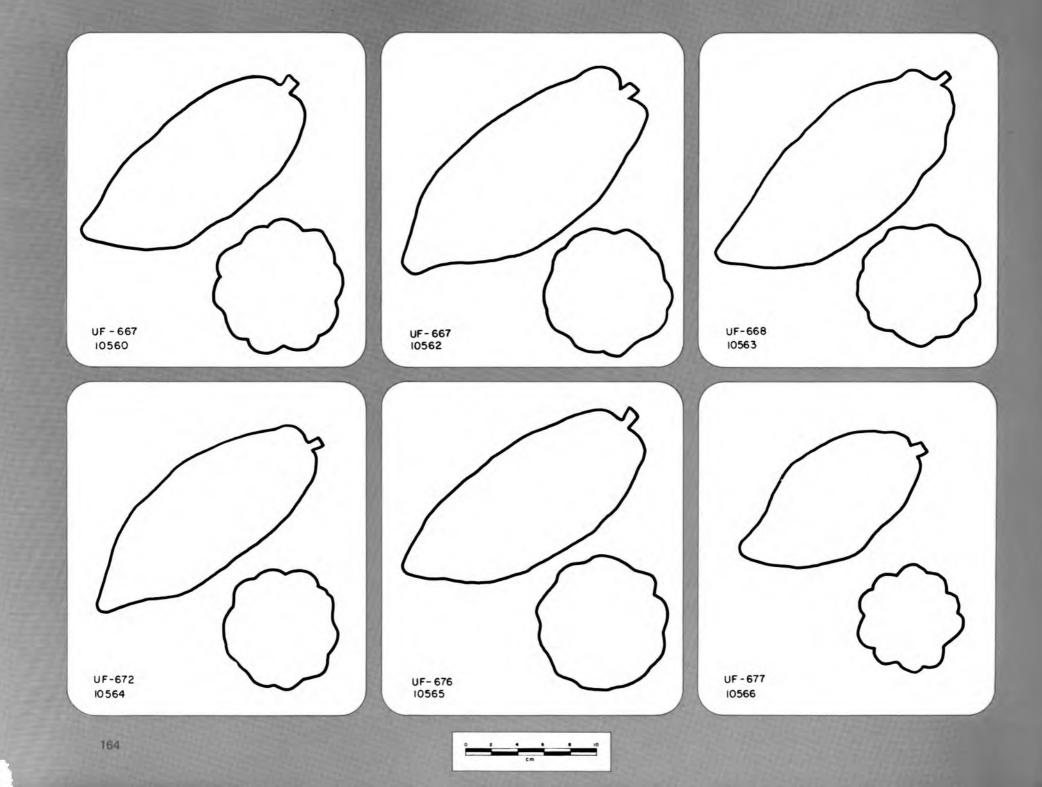


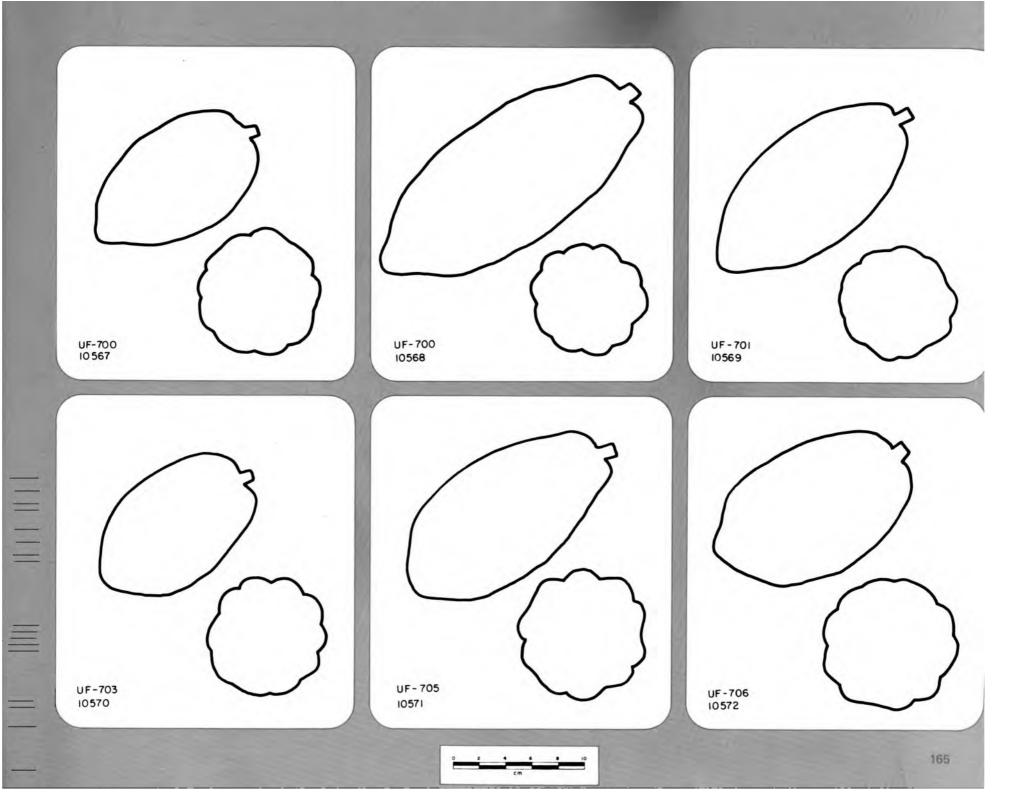


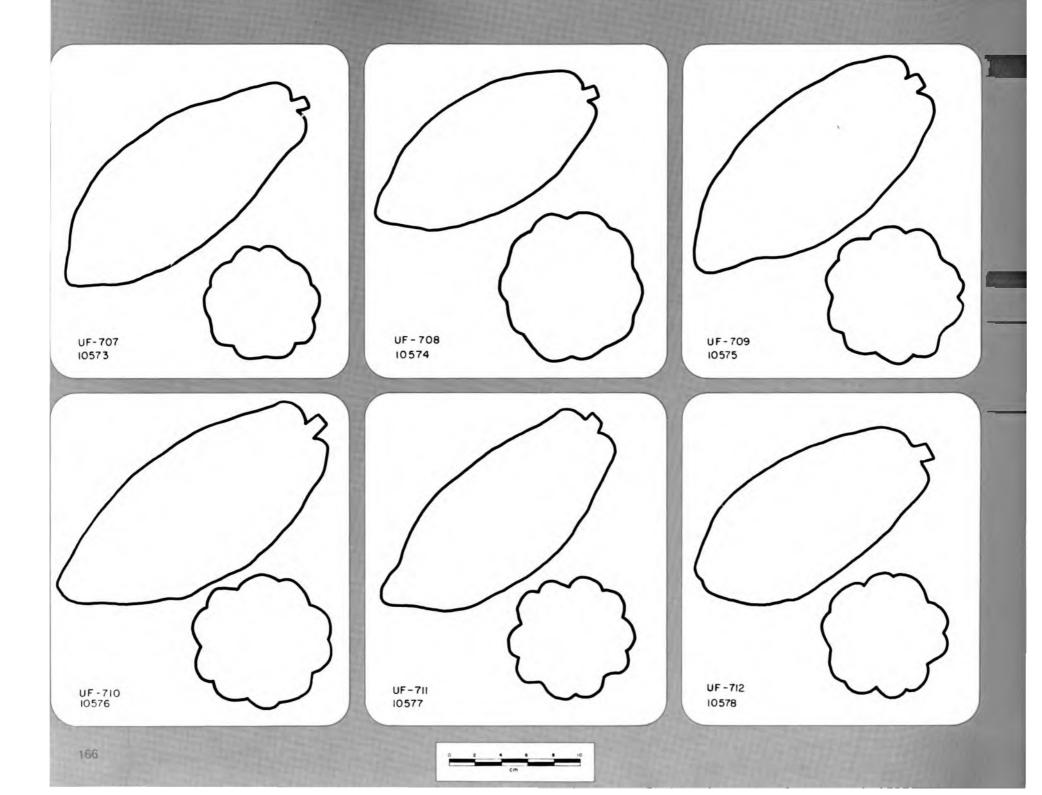


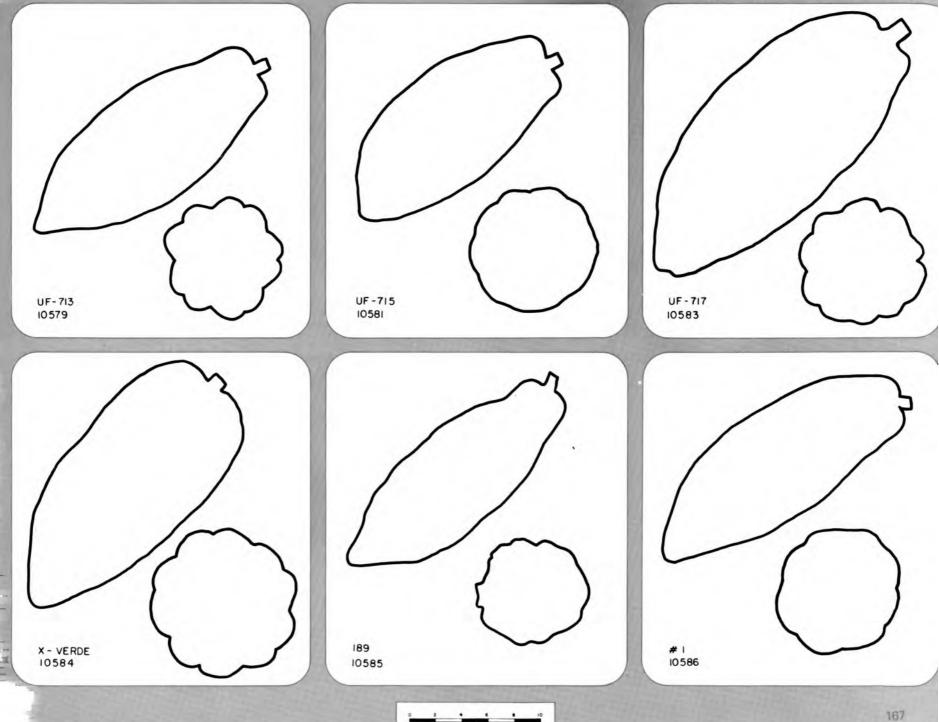












Appendix A

Alphabetical list of accession name acronyms, country and locality of origin

ACRONYM	ORIGIN	COLLECTING SOURCE
APA	Colombia	Amazónico Palmira
BE	Brazil	Belém
BS	Honduras	Buenos Aires
CAS	Brazil	Cacau Amazónico Santarém
Catongo	Brazil	Name of farm
CC	Costa Rica	Centro de Cacao, Turrialba
CHUAO	Venezuela	Name of valley
CNS	Venezuela	Caño Negro, Selección
C. SUL	Brazil	Cruzeiro do Sul
CU	Honduras	Cuyamel
Diamantes	Costa Rica	Experimental Station "Los Diamantes"
DR	Indonesia	Djiti Roengen
EEG	Brazil	Estação Experimental de Goitaçás
EET	Ecuador	Estación Experimental Tropical, Pichilingue
G	Indonesia	Getas
GA	Haití	Grand Anse Bay
GC	Jamaica	
GS	Grenada	Grenada Selection
ICS	Trinidad	Imperial College Selection
IMC	Perú	Iquitos
IQ	Perú	Iquitos
JACA	Brazil	Leaf shape of 'jack fruit'
Laranja	Brazil	Shape of orange
La Esmida	México	
I afi	Samoa	Name of village
LF	Costa Rica	La Fortuna, name of village
MA	Brazil	Manaus
Matina	Costa Rica	Name of village

ACRONYM	ORIGIN	COLLECTING SOURCE
NA	Peru	Nanay, name of village
OC	Venezuela	Ocumare de la Costa
P	Peru (?)	Peru (?)
P	Mexico (?)	Particular
Pa	Peru	Parinari (Peruvian Amazon)
Pará	Brazil	Name of state
Pentagona	Mexico	Pentagonal shape
Porcelana	Venezuela	•
Pound	Peru	Selection made by Pound
PV	Venezuela	Porcelana Venezolano
R	Mexico	Rosario Izapa selection
RB	Brazil	Rio Branco, name of river
Santa Clara	Costa Rica	Name of village
SC	Colombia	Selección Cacao
SCA	Ecuador	Scavina, name of farm
SCR	Costa Rica	San Cristóbal, name of village
SGU	Guatemala	Selección Guatemala
SIAL	Brazil	Seleção Instituto Agronómico do Este
SIC	Brazil	Seleção Instituto de Cacao
SM	Brazil	São Manoel, name of village
SNK	Cameroun	Station of N'Koemoone
SPA	Colombia	Selection Palmira
STICA	Costa Rica	Servicio Técnico Internacional de Cooperación Agrícola
TJ	Honduras	Taujica
TSAN	Trinidad	Amazonian Selection of Trinidad
TSH	Trinidad	Trinidad selection hybrid
TSHN	Trinidad	Hybrid selection of Trinidad
UF	Costa Rica	United Fruit Company
X-Verde	Venezuela	Origin of green fruit unknown
Mexico	Mexico	Mexico
Mocorongo	Brazil	
MT	Honduras	Montes

Appendix B

List of colour codes used and their meaning

Explanation of the colour codes as used in
Methuen handbook of colour. The codes are in
numerical order by table number (=hue); by
alphabetical order of their gradations in shading
(=tone), and finally by number of their degree of
density (=intensity). If several intensities or tones
share the same name, they are listed together,
connected by a dash.

1 A 2	yellowish white
1 B 4-6	grayish yellow
1 C 4-7	grayish green
1 C 8	deep green
1 D 5-6	grayish green
2 B 4	grayish yellow
2 C 4-5	grayish yellow
2 C 6	olive yellow
3 C 4-5	grayish yellow
3 C 7	olive yellow
4 A 5	light yellow
4 B 3-4	grayish yellow
4 C 4	blond
4 C 5	grayish yellow
4 D 4-7	olive brown
4 E 5-7	olive brown

5 B 4	grayish orange
5 C 45	brownish orange
5 C 7	brownish yellow
5 D 4	dark blond
5 D 5-7	light brown
5 E 4-8	yellowish brown
6 B 4	grayish orange
6 C 4-7	brownish orange
6 D 5-8	light brown
6 E 5-7	brown
7 A 2	reddish white
7 B 4	grayish red
7 C 4-7	brownish orange
7 D 4-8	light brown
7 E 6-7	brown
8 A 2 8 A 3 8 B 5 8 C 5 8 C 6-7 8 D 5-8 8 E 5-8	reddish white pale red grayish red grayish red brownish red reddish brown reddish brown
9 A 2	reddish white
9 A 3	pale red

9 A 4-5	pastel red
9 B 6	grayish red
9 C 5-7	brownish red
9 D 5-8	reddish brown
9 E 6-8	reddish brown
9 E 8	dark brown
10 A 2	reddish white
10 A 3	pale red
10 A 4-5	pastel red
10 B 5-6	grayish red
10 C 5-6	brownish red
10 D 5-8	brownish red
10 E 4-8	violet brown
10 F 4-7	violet brown
11 A 2	reddish white
11 A 4-6	pink
11 B 5	grayish pink
11 C 5	grayish red
11 D 4	grayish red
11 D 6-7	brownish violet
11 E 5-7	violet brown
12 A 2	reddish white
12 A 3	pale red
12 D 4	grayish ruby
28 B 3-4	grayish green
28 C 4	grayish green
28 D 5	grayish green
28 D 8	deep green
28 E 5-7	green
28 E 8	deep green
28 F 7	dark green
29 B 2	greenish gray
29 B 3-4	grayish green
29 C 3-7	grayish green
29 D 4	dull green

29 29	D : E : E : E	8 5-7	grayish green deep green green deep green
30 30 30 30 30 30 30 30 30	A A A B B C D B B B B B B B B B B B B B B B B	4 5 3-6 4-7 3-4 5-7 3	pale green pastel green light green grayish green dull green grayish green deep green deep green deep green dark green

Appendix C

List of TUR accession numbers of cacao clones having desirable characteristics or combinations of characteristics in common

For the convenience of the reader/potential user, a list is presented of clones having desirable characteristics in common. For each descriptor state or combination of states, the accession numbers are listed, the number of accessions showing this combination, and the proportion of all the clones (expressed as a percentage). The descriptor states are selected arbitrarily, based on common agronomic or breeding criteria. The following descriptors and their states present a series of desirable characteristics.

descriptor/combination

descriptor state(s)

```
1 fruit index
                                 a) \leq 20.0 and b) \leq 15.0
 2 seed index
                                 (a) \ge 1.5 \text{ and } (b) \ge 1.75
 3 maximum seed number
                                 a) \geq 50 and b) \geq 55
 4 ratio of seed number/
                                    ≥ 0.085
    fruit weight
 5 presence of white seeds
                                         +
 6 self-compatibility
 7 combination of 1 and 2
                                    \leq 20.0 and \geq 1.5;
                                    \leq 15.0 \text{ and } \geq 1.75
 8 combination of 1, 2, and 3
                                    \leq 20.0, \geq 1.5 \text{ and } \geq 50
                                    \leq 25.0, \geq 1.0 \text{ and} \geq 0.075
 9 combination of 1, 2, and 4
10 combination of 1, 2, and 6
                                    \leq 20.0, \geq 1.5 and
11 combination of 3 and 4
                                    \geq 50 and \geq 0.085
                                         + and +
12 combination of 5 and 6
```

Fruit index ≤ 20.0

Result: 55 (18.7%) accessions out of the 294 which were studied.

10133	10236	10374	10534
10134	10237	10376	10543
10135	10268	10415	10545
10140	10272	10417	10550
10155	10275	10419	10551
10159*	10279	10436	10557
10162	10296	10443	10558
10168	10297	10444	10562
10170	10309	10467	10568
10175	10311	10481	10574
10181	10313	10493	10576
10204	10318	10507	10577
10227	10329	10511	10584
10228	10333	10533	

^{*} The underlined accessions have a fruit index \leq 15.0 (result 7 – 2,4% of the accesions).

Seed index ≥ 1.5

Result: 65 accessions or 22.1% out of the 294 which were studied.

10133*	10268	10415	10551
10134	10279	10417	10557
10136	10296	10418	10558
10140	10297	10419	10559
10155	10309	10420	10560
10159	10311	10437	10562
10160	10313	10443	10565
10161	10316	10444	10566
10162	10318	10467	10568
10168	10325	10493	10573
10170	10326	10504	10574
10171	10329	10533	10577
10175	10333	10534	10584
10177	10345	10535	10586
10179	10374	10542	
10181	10376	10543	
10236	10407	10550	

The underlined accessions have an average dry seed weight of 1.75 g or more (result 25 – 8.5% – of the accessions).

Maximum seed number ≥ 50

Result: 68 accessions (23.1%) out of the 294 which were studied.

10113	10256	10380	10497
10143	10257	10398	10507
10188*	10260	10399	10509
10189	10267	10400	10510
10195	10268	10401	10511
10202	10273	10407	10524
10204	10276	10448	10525
10205	10282	10452	10526
10209	10285	10458	10527
10211	10286	10464	10532
10212	10288	10465	10537
10224	10311	10466	10540
10231	10313	10484	10546
10232	10339	10487	10548
10237	10341	10489	10549
10243	10351	10491	10567
10251	10368	10496	10572

[•] The underlined accessions have a maximum seed number > 55.

Ratio of seed number/fuit weight ≥ 0.085

Result: 31 (10.5%) accessions out of the 294 which were studied.

10145*	10237	10368	10464
10190	10243	10381	10473
10191	10245	10385	10478
10192	10254	10448	10488
10195	10256	10449	10494
10204	10258	10450	10497
10211	10344	10452	10548
10221	10351	10456	

^{*} The underlined accessions have a ratio > 0.090.

Presence of white seeds

Result: 50 (17.0%) accessions out of the 294 which were studied.

10103	10333	10437	10535
10113	10338	10438	10541
10114	10368	10441	10543
10125	10376	10443	10557
10128	10382	10448	10559
10166	10397	10457*	10562
10219	10407	10458	10565
10236	10417	10477	10566
10289	10418	10498	10584
10290	10419	10499	10585
10325	10420	10517	11672
10326	10421	10533	
10329	10436	10534	

^{*} The cotyledon colour of this accession is greyish white.

Self-compatibility

Result: 49 (16.7%) accessions out of the 294 which were studied.

10132	10254	10388	10535
10133	10257	10389	10537
10143	10258	10419	10545
10144	10267	10457	10546
10146	10268	10458	10547
10149	10271	10475	10549
10151	10277	10482	10557
10161	10309	10484	10562
10169	10311	10486	10566
10171	10318	10487	10581
10177	10335	10488	
10179	10344	10495	
10180	10374	10504	

Fruit index ≤ 20.0

Seed index \geq 1.5

Result: 42 (14.3%) accessions out of the 294 which were studied.

10133	10268	10376	10550
10134	10279	10415	10551
10140	10296	10417	10557
10155	10297	10419	10558
10159*	10309	10443	10562
10162	10311	10444	10568
10168	10313	10467	10574
10170	10318	10493	10577
10175	10329	10533	10584
10181	10333	10534	
10236	10374	10543	

The underlined accessions have a fruit index < 15.0, and a seed index > 1.75

Fruit index ≤ 20.0

Seed index ≥ 1.5

Maximum seed number ≥ 50

Result: three (1.0%) accessions out of the 294 which were studied.

10268 10311 10313

Fruit index ≤ 25.0

Seed index ≥ 1.0

Ratio of seed number/fruit weight ≥ 0.075

Result: eight (2.7%) accessions out of the 294 which were studied.

10143	10293	10524	10540
10251	10496	10537	10548

Fruit index ≤ 20.0

Seed index ≥ 1.5

Self-compatibility

Result: nine (3.1%) accessions out of the 294 which were studied.

10133	10311	10419
10268	10318	10557
10309	10374	10562

Maximum seed number ≥ 50

Ratio of seed number/fruit weight ≥ 0.085

Result: 13 (4.4%) accessions out of the 294 which were studied.

10195	10243	10448	10548
10204	10256	10452	
10211	10351	10464	
10237	10368	10497	

Presence of white seeds

Self-compatibility

Result: six (2.0%) accessions out of the 294 which were studied.

10419	10535	10562
10458	10557	10566

Appendix D

Statistical magnitudes of quantitative and qualitative characteristics

For the classed qualitative descriptors the absolute and percentage frequency distributions are presented.

For the quantitative descriptors the mean value, the coefficient of variation (CV), the range (minimum and maximum value), skewness (a negative value indicates that the mode of the population is on the right side of the mean, and a positive value on the left side), kurtosis (a normal distribution has a kurtosis of 0.26; if the value is smaller the curve is flattened — platy-kurtosis — and if the value is larger than 0.26 the curve is peaked and slender), and number of observations are given.

QUALITATIVE DESCRIPTORS

Descriptor	Code	Number of accessions	Percentage
Collecting source	1	2	0.7
	2	81	27.6
	3	150	51.0
Type of pollination	1	56	19.0
	2	29	9.9
Year of description	1978	90	30.6
•	1979	110	37.4
	1980	92	31.3
	1981	2	0.7

Descriptor	Code	Number of accessions	Percentage
Month of description	1	16	5.4
The state of the s	2	23	7.8
	3	16	5.4
	4	39	13.2
	5	61	20.7
	6	43	14.6
	7	54	18.4
	8	8	2.7
	9	0	0.0
	10	7	2.4
	11	17	5.8
	12	10	3.6
Presence of white cotyledons	0	245	83.3
·	+	49	16.7
Presence of greyish white cotyledons	0	293	99.7
,	+	1	0.3
Presence of light purple cotyledons	0	108	36.7
<i>5</i> 1 1 7	+	186	63.3
Presence of dark purple cotyledons	0	114	38.8
The state of the s	+	180	61.2
Presence of purple spotted cotyledons	0	267	90.8
	+	27	9.2
Anthocyanin intensity in ridges	0	192	65.3
, , ,	1	12	4.1
	2	10	3.4
	3	13	4.4
	4	2	0.7
	5	2	0.7
	6	0	0.0
•	7	2	0.7

Descriptor	Code	Number of accessions	Percentage
	8	9	3.0
	9	52	17.7
Anthocyanin intensity in primary furrows	0	222	75.5
	1	6	2.0
	2	2	0.7
	2 3 4	4	1.4
		2 3	0.7
	5		1.0
	6	0	0.0
	7	18	6.1
	8	18	6.1
	9	19	6.5
Anthocyanin intensity in ridges of ripe fruits	0	230	78.1
7 6 1	1	4	1.4
	2	2	0.7
	3	1	0.4
	4	1	0.4
	5	21	7.1
	6	6	2.0
	7	18	6.1
	8	10	3.4
	9	1	0.4
Anthocyanin intensity in furrows of ripe fruits	0	245	83.2
	1	3	1.0
•	2	8	2.7
	3	8	2.7
	4	4	1.4
	5	19	6.5
	6	2	0.7
	7	4	1.4
	8	1	0.4
	9	0	0.0

Descriptor	Code	Number of accessions	Percentage
Anthocyanin intensity in ligule	0	92	31.5
<i>g</i>	1	3	1.0
	2	5	1.7
	3	134	45.7
	4	0	0.0
	5	0	0.0
	6	0	0.0
	7	59	20.1
	8	0	0.0
	9	0	0.0
Anthocyanin intensity in stamen filament	0	142	48.4
·	1	2	0.7
	2 3	0	0.0
	3	103	35.2
	4	0	0.0
	5	2	0.7
	6	0	0.0
	7	44	15.0
	8	0	0.0
	9	0	0.0
Anthocyanin intensity in upper part of ovary	0	224	76.2
, , , , , , , , , , , , , , , , , , , ,	1	1	0.4
	2	0	0.0
	3	45	15.3
	4	0	0.0
	5	0	0.0
	6	0	0.0
	7	24	8.1
	8	0	0.0
	9	0	0.0
Self-compatibility	0	245	83.3
•	+	49	16.7

Descriptor	Code	Number of accessions	Percentage
Reaction to Phytophthora palmivora	R	6	2.0
• • •	S	11	3.7
	T	2	0.7
	T-R	23	7.8
Reaction to Crinipellis perniciosa	R	4	1.4
• •	S	18	6.1
	T-R	10	3.4
	M-R	1	0.4
Reaction to Monilia roreri	S	13	4.4
Reaction to Ceratocystis fimbriata	R	4	1.4
•	S	8	2.8
	T	10	3.4
	T-R	9	3.1

QUANTITATIVE DESCRIPTORS

Descriptor	Mean	CV	Minimum	Maximum	Skewness	Kurtosis
Fruit index	26.7	29	13.5	60.1	1.05	1.57
Seed index (dry seed weight)	1.23	28	.55	2.23	.62	03
Production	4.8	32	1.0	9.0	19	91
Maximum seed number	47.	11	3 0.	67.	.27	1.39
Wet seed weight	1.95	28	.92	3.39	.58	24
Ratio dry/wet seed weight	0.64	6	.50	.77	-0.09	1.12
Seed number per fruit	34.1	12	10.7	45.2	-0.77	3.32
Ratio seed number/max seed number	0.73	11	.27	0.88	-1.69	8.21

Descriptor	Mean	cv	Minimum	Maximum	Skewness	Kurtosis
Ratio seed number/frui						
weight	0.064	28	.028	.148	0.79	1.76
Seed length	24.40	9	19.6	30.0	0.22	-0.19
Ratio seed width/seed length	0.54	8	.36	.81	0.46	5.36
Seed width	13.1	13	7.40	17.3	0.02	-0.29
Seed thickness	9.	13	6.5	11.7	0.30	-0.78
Fruit length	174.	15	69 .	241.	0.03	0.32
Fruit width	86.	8	69 .	108.	0.44	0.18
Ratio fruit width/fruit length	0.51	16	.35	1.07	1.50	6.57
Ratio distance widest part/fruit length	0.51	7	.43	.61	0.35	0.93
Fruit weight	570 .	8	208.	1171.	0.88	1.06
Fruit wall thickness (ridge)	12.50	16	8.2	18.6	0.35	-0.15
Fruit wall thickness (furrow)	7.9	18	4.8	14.9	.94	2.09
Ridge pair separation	.73	15	.11	.98	45	2.64
Primary furrow depth	3.9	41	1.0	9.0	.41	-0.42
Fruit surface rugosity	3.8	44	0.0	9.0	.30	0.01
Fruit apex form	4.6	39	0.0	9.0	.10	-0.18
Basal fruit constriction	1.8	100	0.0	9.0	1.13	0.86
Mesocarp hardness	5.0	33	1.0	7.0	-0.04	-1.35
Style length	2.27	12	1.35	3.14	0.33	0.78
Ovary length	1.36	12	1.02	2.20	-0.58	13.37
Ovary width	1.00	7	.82	1.53	3.73	26.37
Staminode length	7.49	9	4.00	9.13	- .73	2.54
Sepal length	8.66	9	6.23	11.44	24	0.47

•

Descripto	Mean	Cv	Minimum	Maximum	Skewness	Kurtosis
Sepal width	2.33	9	1.90	2.85	0.34	-0.31
Petal length	7.69	11	4.93	10.46	0.06	0.78
Ligule width	2.53	14	1.60	3.71	0.37	0.08

Appendix E Alphabetic listing of the accessions of cacao

Theobroma cacao L.

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