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EAST AFRICAN STANDARD

Fresh chayotes — Specification and grading



EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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Introduction

In the preparation of this East African Standard, the following sources were consulted extensively:

CODEX STAN 216:1999 (Rev. 2005), *Standard for Chayotes*

CODEX STAN 193:1995 (Rev.5:2009), *General Standard for Contaminants and Toxins in Foods*

CODEX STAN 228:2001 (Rev.1:2004), *General methods of analysis for contaminants*

CODEX STAN 230:2001 (Rev.1:2003), *Maximum levels for lead*

Codex Alimentarius website: http://www.codexalimentarius.net/mrls/pestdes/jsp/pest_q-e.jsp

USDA Foreign Agricultural Service website: <http://www.mrlatabase.com>

USDA Agricultural Marketing Service website: <http://www.ams.usda.gov/AMSV1.0/Standards>

USDA Plant Inspectorate Service website: http://www.aphis.usda.gov/import_export/plants

European Union: http://ec.europa.eu/sanco_pesticides/public

Assistance derived from these sources and others inadvertently not mentioned is hereby acknowledged.

This standard has been developed to take into account:

- the needs of the market for the product;
- the need to facilitate fair domestic, regional and international trade and prevent technical barriers to trade by establishing a common trading language for buyers and sellers.
- the structure of the CODEX, UNECE, USA, ISO and other internationally significant standards;
- the needs of the producers in gaining knowledge of market standards, conformity assessment, commercial cultivars and crop production process;
- the need to transport the product in a manner that ensures keeping of quality until it reaches the consumer;
- the need for the plant protection authority to certify, through a simplified form, that the product is fit for crossborder and international trade without carrying plant disease vectors;
- the need to promote good agricultural practices that will enhance wider market access, involvement of small-scale traders and hence making fruit and vegetable production a viable means of wealth creation; and
- the need to keep unsatisfactory produce from the market by allowing the removal of unsatisfactory produce from the markets and to discourage unfair trade practices e.g. trying to sell immature produce at the beginning of the season when high profits can be made. Immature produce leads to dissatisfaction of customers and influences their choices negatively, which disadvantages those traders who have waited until the produce is mature.

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Fresh chayotes — Specification and grading

1 Scope

This Standard applies to commercial varieties of chayotes grown from *Sechium edule* (Jacq.) Sw., of the *Cucurbitaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Chayotes for industrial processing are excluded.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CAC/GL 21, *Principles for the Establishment and Application of Microbiological Criteria for Foods*

CAC/RCP 1, *Recommended International Code of Practice — General Principles of Food Hygiene*

CAC/RCP 44, *Recommended International Code of Practice for the Packaging and Transport of Tropical Fresh Fruit and Vegetables*

CAC/RCP 53, *Code of Hygienic Practice for Fresh Fruits and Vegetables*

EAS 38, *Labelling of prepackaged foods — Specification*

CD/K/378:2010, *Horticultural industry — Code of practice*

3 Description

S. edule is a perennial, monoecious climber, with thickened roots and slender, branching stems up to 10 m long. Its leaves are on sulcate petioles of 8 to 15 cm in length, they are ovate-cordate to suborbicular, measure 8 to 18 x 9 to 22 cm, are slightly lobate (with three to five angular lobes) and have minutely denticulate margins and three to five divided tendrils.

4 Provisions concerning quality

4.1 General

The purpose of the standard is to define the quality requirements of chayotes at the export control stage, after preparation and packaging.

4.2 Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the chayotes must be:

- (a) whole;
- (b) sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- (c) clean, practically free of any visible foreign matter;
- (c) practically free of pests affecting the general appearance of the produce;
- (d) practically free of damage caused by pests;
- (e) free of abnormal external moisture, excluding condensation following removal from cold storage;

- (f) free of any foreign smell and/or taste;
- (g) firm;
- (h) fresh in appearance;
- (i) free of damage caused by low temperatures;
- (j) practically free of bruising;
- (k) free of damage caused by the sun;
- (l) free of fibrous flesh;
- (m) free of hard spines;
- (n) free of visible signs of germination.

4.2.2 The chayotes must have been carefully picked and have reached an appropriate degree of development and ripeness in accordance with criteria proper to the variety and to the area in which they are grown.

The development and condition of the chayotes must be such as to enable them:

- (a) to withstand transport and handling; and
- (b) to arrive in satisfactory condition at the place of destination.

4.3 Classification

Chayotes are classified in three classes defined below:

4.3.1 “Extra” Class

Chayotes in this class must be of superior quality. They must be characteristic of the variety and/or commercial type. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

4.3.2 Class I

Chayotes in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape, i.e. lightly marked longitudinal grooves and slight depressions;
- slight defects in colouring, not exceeding 25% of the total surface area;
- slight skin defects due to scarring, not exceeding a total of 3 cm².

The defects must not, in any case, affect the pulp of the fruit.

4.3.3 Class II

This class includes chayotes which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in 4.2. The following defects, however, may be allowed, provided the chayotes retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape, i.e. lightly marked longitudinal grooves and slight depressions;
- defects in colouring, not exceeding 35 % of the total surface area;
- skin defects due to scarring, not exceeding a total of 5 cm².

The defects must not, in any case, affect the pulp of the fruit.

5 Provisions concerning sizing

Size is determined by weight or by length, with a minimum weight of 200 grams or a minimum length of 12 cm, in accordance with the following table:

Size code	Weight (in grammes)	Length (cm)
A	200 - 300	12 - 14
B	301 - 400	15 - 16
C	401 - 500	> 16
D	> 500	

The difference in weight between individual fruits under size code D may not exceed 150 grams.

6 Provisions concerning tolerances

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

6.1 Quality tolerances

6.1.1 "Extra" Class

Five percent by number or weight of chayotes not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

6.1.2 Class I

Ten percent by number or weight of chayotes not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

6.1.3 Class II

Ten percent by number or weight of chayotes satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

6.2 Size tolerances

For all classes, 10% by number or weight of chayotes corresponding to the size immediately above or below that indicated on the package.

7 Provisions concerning presentation

7.1 Uniformity

The contents of each package must be uniform and contain only chayotes of the same variety and/or commercial type, origin, quality, colour and size. The visible part of the contents of the package must be representative of the entire contents.

7.2 Packaging

Chayotes must be packed in such a way as to protect the produce properly. The materials used inside the package must be new¹, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Chayotes shall be packed in each container in compliance with CAC/RCP 44.

¹ For the purposes of this Standard, this includes recycled material of food-grade quality.

7.2.1 Description of containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the chayotes. Packages must be free of all foreign matter and smell.

8 Marking or labelling

8.1 Consumer packages

In addition to the requirements of EAS 38, the following specific provisions apply:

8.1.1 Nature of Produce

If the produce is not visible from the outside, each package should be labelled as to the name of the produce and may be labelled as to name of the variety.

8.2 Non-retail containers

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment.

8.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional).²

8.2.2 Nature of Produce

Name of the produce if the contents are not visible from the outside. Name of the variety or commercial type (optional).

8.2.3 Origin of Produce

Country of origin and, optionally, district where grown or national, regional or local place name.

8.2.4 Commercial Identification

- Class;
- Size (size code or minimum and maximum weight or length in grams or mm, respectively);
- Net weight (optional).

6.2.5 Official Inspection Mark (optional)

9 Contaminants

9.1 Heavy metals

Chayotes shall comply with those maximum levels for heavy metals established by the Codex Alimentarius Commission for this commodity.

9.2 Pesticide residues

Chayotes shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

² The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

10 Hygiene

10.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of CAC/RCP 1, CAC/RCP 53, and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with CAC/GL 21.



Chayotes on the vine



Fresh chayotes




Chayotes on the vine



Fresh chayotes

Annex C
(informative)

Model certificate of conformity with standards for fresh fruits and vegetables

1. Trader:	Certificate of conformity with the Community marketing standards applicable to fresh fruits and vegetables No. (This certificate is exclusively for the use of inspection bodies)		
2. Packer identified on packaging (if other than trader)	3. Inspection body		
	4. Place of inspection/country of origin ⁽¹⁾	5. Region or country of destination	
6. Identifier of means of transport	7. <input type="checkbox"/> Internal <input type="checkbox"/> Import <input type="checkbox"/> Export		
8. Packages (number and type)	9. Type of product (variety if the standards specifies)	10. Quality Class	11. Total net weight in kg
12. The consignment referred to above conforms, at the time of issue, with the Community standards in force, vide: <u>CD/K/032:2010, Fresh chayotes — Specification and grading</u> <hr/> Customs office foreseen Place and date of issue Valid until (date): Signatory (name in block letters): <div style="display: flex; justify-content: space-around;"> Signature Seal of competent authority </div>			
13. Observations:			
<small>(1) Where the goods are being re-exported, indicate the origin in box 9.</small>			

Annex D (informative)

Chayote — Fact sheet

D.1 Introduction

Scientific name: *Sechium edule* (Jacquin) Swartz, Cucurbitaceae family

Common names: Chayote, Buddha's-hand, *Chaco*, *Chayotli*, *Chinchayote*, *Chocho*, *Choko*, Christophene, Christophine, *Chuchu*, Custard Marrow, *Guispui*, Mango Squash, Mirilton, *Pepinella*, *Sousous*, *Tallon*, *Tallote*, Vegetable Pear, *Xuxu*

Sechium edule. Chayote was a common vegetable among the Aztecs prior to Spanish conquest of Mexico. It is still one of the most widely cultivated of the cucurbits in Costa Rica. It requires high levels of soil moisture and can grow at elevations up to 1 500 m. Unlike most cucurbits, it has a daylength requirement of 12 to 12.5 h for flowering. The plants grow best on hillsides and are usually trellised. Parthenocarpic fruit set can be induced by gibberellin.

Unlike other cucurbits, the fruit contain only a single, large seed. The immature fruits can be eaten raw in salads and provide a good source of vitamin C. They can also be boiled, fried, steamed, or stuffed and baked. Young leaves and tendrils are also eaten, and seeds can be sauteed in butter as a delicacy. The large storage roots represent a rich source of starch.

D.2 Description

The chayote is a herbaceous, perennial, monoecious, vigorous creeper or climbing plant. It grows from a single, thick root, which produces adventitious tuberous roots. The stems are angular-grooved and glabrous, and several grow simultaneously from a single root, at least in the cultivated plants. They thicken towards the base and appear woody, while towards the apex there are many thin, firm, herbaceous branches. The leaves have grooved petioles, 8-15 cm long, and are glabrous; the blade is a firm papiraceous-membranous, ovate-cordate to suborbicular, 10-30 cm long, and almost as wide at the widest point, slightly 3-5 angular-lobed with pointed to acuminate lobes, the margins are totally to slightly dentate, and the base is cordate-rectangular, with the sinus open to semiclosed by the bases of the lateral lobes; both blade surfaces are pubescent when young, later becoming glabrescent, although the adaxial one is persistently puberulent on the veins. Like almost all Cucurbitaceae, the chayote plant develops tendrils for support. These are sturdy, 3-5 branched, furrowed and essentially glabrous.

The flowers are unisexual; the staminate are arranged in pedunculate and erect racemes, 10-30 cm long or more in wild plants, and usually with the flowers arranged in fascicular or subracemose clusters disposed at intervals along the rachis; the pedicels are 1-2 mm long and are puberulent; the receptacle is patelliform, 1-2 mm long or less, 4-5 mm wide and glabrous, with five narrow triangular sepals usually patent to reflexed in buds, which are 4 mm long and almost 1 mm wide. There are also five petals, patent, green to greenish-white, which are widely triangular, obtuse to acute, 6-7 mm long and 2-3 mm wide. The stamens are five with fused filaments along almost all of the length, forming a thick column, which normally separates into five short branches (although sometimes three, and more rarely four, are found); the anthers develop at the apex of the short branches of the filaments, they are oblong and when three are found, two of them are bitheous and one monotheous, and when there are more than three, apparently all are bitheous, the thecas are flexuous and the connective has some scattered short hairs with an enlarged base. A total of 10 porelike uncovered nectaries are found at the base of the receptacle surrounding the stamina column. These are densely puberulent to tomentose on the upper surface, and only slightly projected beneath, in the form of a sac.

The pistillate flowers develop in the same axilla as the staminate ones. They are usually solitary, although occasionally they might grow in pairs or, on rare occasions, three grow from the same pedicel; the pedicel is thin, grooved, glabrous and is 1-3.5 cm long, growing up to 8-9 cm in the fruit. Many different shapes of ovary are found, from completely unarmed and glabrous to variously

indumented or armed; the perianth is like that of the staminate flower, but reduced in the receptacle; the styles are joined together in a thin column, and the stigma is subglobose and 2-lobate; the nectaries of the receptacle base are similar to those of the staminate flowers.

The fruits grow either individually or in pairs (rarely in greater numbers) on a shared peduncle. They are fleshy or fleshy-fibrous, may have longitudinal ridges or furrows, and come in many different shapes (globose, ovoid, subovoid, pyriform, elongated pyriform), sizes (4.3-26.5 cm long, 3-11 cm wide), and colours (from white to pale yellow – colours not found in wild populations – to dark or light green); they may be unarmed and smooth, or with varied indumentums or armature, although they generally conserve the characteristics of the ovary. They may have woody ridges or lenticels on the surface, especially when ripe; the pulp is pale green or whitish and tastes bitter in wild plants and pleasant, sweet or insipid in cultivated plants; the seed is ovoid, compressed and smooth, and germinates within the fruit; in cultivated plants the seed germinates when the fruit is still on the plant, while in wild plants only once the fruit becomes detached.

D.3 Pollination

As far as pollination is concerned, it is known that this is carried out by several insect species. Additionally, there appears to be no difference in fruit production rates between plants with open pollination and those which are self- or cross-pollinated. On the other hand, it seems that fruit production is not affected by the number of pollen grains applied to the stigma, or by how often they are applied. It also has been shown that when chayote was grown under greenhouse conditions, in the absence of pollinating insects, immature fruits failed to develop and abscised prematurely.

The fact that chayote pollination depends on insects may be one of the reasons why it has spread so successfully, but it also makes it very difficult to preserve pure strains, which is important not only for commercial or traditional plantation, but also for genebanks. The relative importance of chayote pollinators has been observed to increase not just with ecogeographical and environmental factors such as altitude and latitude, but also with the use of pesticides. Thus, some species of bees of the genus *Trigona* that have been identified as very efficient chayote pollinators are found mostly at medium to high altitudes, which are pesticide-free. In contrast, other important pollinators, such as *Apis mellifera*, are most commonly found mainly in commercial plantations, where pesticides are frequently used. Secondary pollinators of chayote include wasps from the genera *Polybia*, *Synoea* and *Parachrataegus* as well as other smaller species of *Trigona*.

D.4 Uses and properties

Chayote is basically used for human consumption, not just in the Americas but in many other countries. In addition to the fruit, stems and tender leaves (usually known as 'quelites'), the tuberous parts of the adventitious roots (in Mexico called 'chayotextle', 'cueza', 'camochayote', 'chayocamote' and 'chinchayote', and in Guatemala and El Salvador 'ichintla', 'echintla', 'chintla' or 'chinta') are also eaten. They are much appreciated as a vegetable and are either just boiled or used in stews and desserts.

The edible parts of *S. edule* (Table D.1) are relatively low in fibre, protein and vitamins compared with other vegetables. Nevertheless, they have a high caloric and carbohydrate content, especially in young stems, root and seed, and the micro and macronutrient content of the fruit is adequate. The fruits, and the seed especially, are rich in several important amino acids such as aspartic acid, glutamic acid, alanine, arginine, cysteine, phenylalanine, glycine, histidine, isoleucine, leucine, methionine (only in the fruit), proline, serine, tyrosine, threonine and valine (Flores 1989). Many of these nutritional characteristics make chayote particularly suitable for hospital diets (Liebrecht and Seraphine 1964; Silva *et al.* 1990).

Chayote is also used in other ways in different parts of the world. The softness of the fruit flesh makes it particularly suitable for giving consistency to baby foods, juices, sauces and pastes. Because of the flexibility and strength of the stems, they are used in some places, such as Reunion, in handicrafts to make baskets and hats (Cordenoy 1895 in Newstrom 1991). In India, as in the Americas, the fruit and roots are not only used as food but also as fodder for cattle (Chakravarty 1990).

Medicinal use of chayote has also been documented in the literature. Data compiled in recent studies highlight the use of decoctions made from the leaves or fruits to relieve urine retention and burning during urination or to dissolve kidney stones, and as a complementary treatment for arteriosclerosis and hypertension (Lira 1988; Flores 1989; Yang and Walters 1992). In the Yucatan Peninsula, where kidney disorders are frequent, these decoctions are considered to be effective and have been in use since colonial times (Lira 1988). The diuretic properties of the leaves and seeds, and the cardiovascular and anti-inflammatory properties of the leaves and fruit, have been confirmed by pharmacological studies (Bueno *et al.* 1970; Lozoya 1980; Salama *et al.* 1986, 1987; Ribeiro *et al.* 1988).

Dehydration of the fruit has been carried out in Mexico and other countries in an attempt to increase the shelf life of chayote and make it more widely available, perhaps even for industrial use (A. Cruz-León, pers. comm.). Results are said to be promising; jams and other types of sweets have been manufactured and dehydrated fruits have been conserved for later use as a vegetable. On the other hand, some countries, such as the Philippines, have successfully used chayote plants in mixed plantations designed specifically for soil recovery and/or conservation (Costales and Costales 1985).

Table D.1 — Chemical composition (% or mg/100 g) of fruit, young stems and roots of *Sechium edule*

Component	Fruit	Seed	Stem	Root
Calories	26.0-31.0	–	60.0	79.0
Humidity (%)	89.0-93.4	–	89.7	79.7
Soluble sugar (%)	3.3	4.2	0.3	0.6
Starch (%)	0.2	1.9	0.7	13.6
Proteins (%)	0.9-1.1	5.5	4.0	2.0
Fats (%)	0.1-0.3	–	0.4	0.2
Carbohydrates (%)	3.5-7.7	60.0	4.7	17.8
Fibre (%)	0.4-1.0	–	1.2	0.4
Ashes (%)	0.4-0.6	–	1.2	1.0
Ca (mg)	12.0-19.0	–	58.0	7.0
P (mg)	4.0-30.0	–	108.0	34.0
Fe (mg)	0.2-0.6	–	2.5	0.8
Vitamin A (mg)	5.0	–	615.0	–
Thiamin (mg)	0.03	–	0.08	0.05
Riboflavin (mg)	0.04	–	0.18	0.03
Niacin (mg)	0.4-0.5	–	1.1	0.9
Ascorbic acid (mg)	11.0-20.0	–	16.0	19.0

D.5 Ecology

Chayote is traditionally cultivated in empty patches, backyards and market gardens as well as in plantations for commercial purposes. It is a medium- to high-altitude crop (300-2000 m asl), it requires a high relative humidity (80-85%), well-distributed annual precipitation of at least 1500-2000 mm and 12 hours daylight to initiate flowering. The most suitable average temperature is 13-21°C. Temperatures of less than 13°C damage small or unripe fruit while those above 28°C favour excessive growth and the falling of flowers and unripe fruit, all of which reduces production. Chayotes for export grow best on sites located at 1000-1200 m asl.

While topography and stoniness do not seem to be important factors for the cultivation of chayotes, other soil factors do. Productivity is greater in deep soil with plenty of organic matter but is affected negatively by clay or sandy soils which retain moisture and encourage the development of diseases, especially those caused by fungi.

The above indicates that chayote is highly susceptible to frosts, droughts and excessive humidity, as well as to certain soil factors.

D.6 Agronomy

D.6.1 Propagation and planting

Although this will vary according to the state of the site, it will normally consist of clearing weeds from an area of approximately 2 m in diameter around the point where the seed or fruits are to be planted. With sloping sites, farm workers in Costa Rica prepare small, individual terraces to prevent soil erosion. On commercial plantations, lime is often applied as are nematicides and fertilizers rich in nitrogen and organic matter.

The most common and efficient way of propagating chayote is to use the seeds/fruits and the most common way of planting consists of planting one or more complete fruits once the seedling has sprouted. At least in some places in Mexico, the seed is removed from the fruit and placed in a flower pot or some other place where the young plants can be carefully tended before being transplanted to where they will grow.

Propagation by seeds/fruits is also used in commercial plantations, although vegetative propagation by planting basal shoots is sometimes used as well. This latter method is fairly successful but it requires additional investment in order to ensure that the sprouts grow adequately (installation of controlled humidity chamber, use of hormones, areas for reseeding and monitoring, etc.). It has been observed that the use of this method increases plant loss, favours the spread of disease and can even lead to decreased plant productivity.

In areas where chayote is traditionally produced, the planting site is prepared in advance. A sufficiently large hole (usually filled with organic manure) is dug to enable the roots to grow to their full extent without damage. A frame of branches, wood or some other kind of material is often made nearby so that the plant has somewhere to climb. Seeding is often near a tree for this reason. In commercial plantations a trellis system is established consisting of wooden poles and wires. During the first weeks of plant development, care is relatively intense (watering, fertilizing, etc.) although attention to the root (protecting it from physical damage and adding fertilizer) is considered to be of great importance throughout the life cycle of the plant.

The number of plants and/or types of chayote which can be cultivated in a traditional market garden varies considerably. Much will depend on the size of the site and seed availability. In some parts of Mexico, for example, the author has seen home gardens where usually only one plant is grown, always with the same type of fruit morphology, while others with up to five plants grow simultaneously and all produce fruit with different morphology. On commercial plantations, of course, this does not happen. The distance between each planting point varies from 6 to 10 m and the number of seeds/fruits planted is from 1 to 4. An inaccurate choice of this density might require either the reduction in the number of plants or the addition of new ones, which in both cases will involve additional costs in labour.

Planting of chayote can take place at any time during the year, although it is often done at the beginning of the rainy season or even during the months of highest precipitation. This fact is important, mainly because during the first stages of its growth, the plant develops a very dense foliage which causes a vast loss of water by means of evapotranspiration. The duration of the productive cycle of the plant varies considerably for phenotypes produced in traditional agriculture areas. Plants can be found which have been producing continuously for long periods, sometimes for 8 years or even more. On commercial plantations, however, the life cycle of the plants is from 1 to 3 years. The plants are then removed and replaced to help prevent the spread of disease. After the first year of production, the plants begin to lose their strength and productivity is reduced.

Care of chayote plants generally includes cleaning or weeding, the application of pesticides and herbicides, and irrigation. All of these activities are carried out more intensely and systematically on commercial plantations. Cleaning or weeding is usually carried out manually or with the help of herbicides during the growing period. Although fertilizing with complete formula products (15-15-15, 12-24-24) usually does not take place until 2 weeks after seeding, it is highly recommendable for phosphorus-rich fertilizers to be applied in the holes where seeding is to take place. Irrigation during the dry season is of vital importance given the high transpiration rate of chayote plants and the fact

that roots are superficial. Sprinkling is the best method since this helps reduce infestation by mites known as 'arañitas rojas' (*Tetranychus urticae* Koch), one of the worst pests for chayote.

D.6.2 Harvesting

One plant can produce even more than 300 fruits per year. Yields of 22-28 t/ha have been reported from commercial plantations. Chayote fruits are harvested manually as often as required depending, obviously, on the productivity of the plant. On commercial plantations, however, given the uniformity of the materials used, harvesting is programmed and much more systematic. It involves the collection of fruits 2-4 days per week during the production time, as well as the selection and classification of fruits for export and home markets. In general, the most common strategy is to devote 1 day a week to harvest fruits for exportation and the remaining days to harvest the fruits for local markets. Once the fruits have been collected and selected, they are put in wooden boxes and sent to the packers. There, a second selection process takes place after which the fruits are packed in cardboard boxes and plastic bags with antitranspirants and fungicides; these are then sent in refrigerated containers.

The harvesting of the tuberous parts of the roots is much more complicated and has to be done with great care to avoid damaging the plant. According to Cruz-León and López, tuberization takes place during the cold period and can initiate during the first year of the plant's life. Apparently, as with the leaves, the roots are renewed each year since, once new ones are produced, the previous ones start to lose turgidity and putrefaction begins.

D.6.3 Post-harvesting

How the fruits are taken care of when harvested is of paramount importance from a commercial perspective, particularly in view of the fact that chayotes stored at ambient temperature spoil completely after 30 days. Tests carried out to date to find the most efficient ways of protecting fruit packed for export show that the use of plastic bags greatly reduces loss of humidity although it increases the incidence of pathogens such as *Mycovellosiella cucurbiticola*. This, however, can be controlled through the use of antitranspirants, which also reduce chilling injury. Tests at temperatures of 13-14°C and 80-90 % humidity have shown that fruit begins to germinate after 15 days, drops constantly in weight and pathogens develop.

D.7 Pests and diseases

Much of the effort to find ways of improving crops commercially is dedicated to the search for new pest- and disease-resistant genotypes. However, paradoxically, pests and diseases often increase as ways of improving production and yield are implemented. The chayote is no exception. Many of the practices used in commercial crops (genetic homogeneity of seed material, sexual and vegetative methods of propagation, and the closeness of plantations) have produced a series of pests and diseases in this crop both in its area of origin and in other parts of the world.

As mentioned before, one of the most worst pests is the mite known as 'arañita roja' (*Tetranychus urticae*) which frequently appears during the dry season and produces yellowing of the leaves and clear scabs on the fruit. It is thought that this pest helps transmit the fruit disease known as 'sarna' or 'roña' (scabies/mange) since the scabs increase as the plants become more infested. Secondary pests include: Lepidoptera such as *Diaphania hyalinata* L. and *D. nitidalis* (Stoll), which perforate unripe fruit, opening up ways of access for fungal and/or bacterial diseases; Hemiptera such as *Aphis* spp. and *Bemisia tabaci* (Genn), which suck the leaves, fruit peduncles and occasionally the fruit, causing dark blemishes which make the fruit unmarketable; Coleoptera such as some of the species of the *Phyllophaga* and *Diabrotica* genera, which mainly attack the fruit but also the seedling.

As shown in Table D.2, a wide range of pests and diseases attacks chayote. Most of these are caused by fungi although some are caused by nematodes and insects. These diseases are of great importance since they can attack one or more parts of the plant at any time during its development, including after harvest. Fungi, which are known to be associated with approximately 33 diseases, are among the most important pathogens and include *Ascochyta phaseolorum* and various species of *Fusarium*, *Macrophomina* and *Colletotrichum*. Also, harvested fruits can be affected by one or more of these pathogens.

Table D.2 — Important and common pests and diseases of cultivated chayote

Spanish common name	Causal agent or vector	Affected organs	Symptomatology
Roña o Sarna	<i>Phoma cucurbitacearum</i> Fungus	Fruits	Clear and brown necrotic areas, appearing corky and depressed
Vejiga o Salpullido	<i>Mycovellosiella cucurbiticola</i> , <i>M. lantanae</i> Fungi	Fruits	Watery pustules
Pudrición Chocolate	<i>Colletotrichum spp.</i> Fungi	Fruits	Concave lesions with defined borders, with a central gelatinous orange spot
Estrella Negra	<i>Venturia cucumeris</i> Fungus	Leaves	Spots on leaf nerves
Mildiú Pulverulento	<i>Erysiphe cichoracearum</i> Fungus	Leaves	Leaf spots
Mancha de Cercospora	<i>Cercospora cucurbitae</i> Fungus	Leaves	Leaf spots
Pudrición de Corona	Pathogen associations: (<i>Ascochyta phaseolorum</i> , <i>Fusarium spp.</i> , <i>Colletotrichum</i> spp. and <i>Macrophomina spp.</i>) Fungi	Fruits	Blackish lesion of the fruit peduncle, that may advance to other parts of the fruit; mainly present in the post-harvest period
Peca Blanca	<i>Ascochyta phaseolorum</i> Fungus	Leaves and fruits	White circular depressed lesions, with black prints and a deep green border; can be associated with <i>Pseudomonas</i> , and turn wet with a brown halo
Chino del Chayote	<i>Empoasca solana</i> and an unidentified species of subfamily Thyphiocybinae insects	Whole plant	Yellowing of whole plant, growth reduction through internode shortening, axillary bud proliferation, small curled, deformed leaves and yellowing, reduction in size and mummification of fruit
Jobotos	<i>Phyllophaga sp.</i> Insect	Seedlings	Lesions caused by herbivores
Unknown	<i>Meloidogyne incognita</i> <i>Helicotylenchus sp.</i> Nematodes	Roots	Root rotting
Unknown	<i>Helithosporium sechium</i> Fungus	Leaves	Leaf spots
Unknown	<i>Fusarium oxysporum</i> Fungus	Leaves and stems	Leaf yellowing and stem withering; common in drought period

The most important nematodes are *Meloidogyne incognita* and *Helicotylenchus sp.* which cause rotting of the roots. Among insects, we find the *Empoasca solana* which is the vector of a disease known as 'chino del chayote' (chayote curl). Several chemical products are available for controlling pests and diseases. Alternately, they can be controlled manually by removing the damaged part of the plants, but this process is long and tedious. Another strategy used is the rotation of crops that frequently are associated with chayote plantations.

Annex E (informative)

Chayote — Codex, EU and USA pesticide residue limits

Users are advised that international regulations and permissible Maximum Residue Levels (MRL) frequently change. Although this International MRL Database is updated frequently, the information in it may not be completely up-to-date or error free. Additionally, commodity nomenclature and residue definitions vary between countries, and country policies regarding deferral to international standards are not always transparent. This database is intended to be an initial reference source only, and users must verify any information obtained from it with knowledgeable parties in the market of interest prior to the sale or shipment of any products. The developers of this database are not liable for any damages, in whole or in part, caused by or arising in any way from user's use of the database.

Results Key

MRL values in *(Italics)* are more restrictive than US

--- indicates no MRL value is established.

Cod, EU, etc. indicates the source of the MRL and EXP means the market defers to the exporting market.

All numeric values listed are in parts per million (ppm), unless otherwise noted

	US	Cod	EU
2,4-D	---	---	---
	US 1	Cod	EU
Abamectin	0.005	---	---
	1. United States does not maintain a specific MRL for the Abamectin/Chayote, fruit combination, but does maintain an MRL of 0.005 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 2	Cod	EU
Acetamiprid	0.5	---	---
	2. United States does not maintain a specific MRL for the Acetamiprid/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 3	Cod	EU
Acibenzolar-S-methyl	2	---	---
	3. United States does not maintain a specific MRL for the Acibenzolar-S-methyl /Chayote, fruit combination, but does maintain an MRL of 2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 4	Cod	EU
Bensulide	0.15	---	---
	4. United States does not maintain a specific MRL for the Bensulide/Chayote, fruit combination, but does maintain an MRL of 0.15 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 5	Cod	EU
Beta-cyfluthrin	0.1	---	---
	5. United States does not maintain a specific MRL for the Beta-cyfluthrin/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod 6	EU
Bifenazate	0.1	0.5	---
	6. Codex does not maintain a specific MRL for the Bifenazate/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 7	Cod	EU
Bifenthrin	0.4	---	---
	7. United States does not maintain a specific MRL for the Bifenthrin/Chayote, fruit combination, but does maintain an MRL of 0.4 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 8	Cod	EU
Boscalid	1.6	---	---
	8. United States does not maintain a specific MRL for the Boscalid/Chayote, fruit combination, but does maintain an MRL of 1.6 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 9	Cod	EU
Buprofezin	0.5	---	---
	9. United States does not maintain a specific MRL for the Buprofezin/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		

	US 10	Cod	EU
Captan	0.05	---	---
	10. United States does not maintain a specific MRL for the Captan/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 11	Cod	EU
Carbaryl	3	---	---
	11. United States does not maintain a specific MRL for the Carbaryl/Chayote, fruit combination, but does maintain an MRL of 3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 12	Cod	EU
Carfentrazone-ethyl	0.1	---	---
	12. United States does not maintain a specific MRL for the Carfentrazone-ethyl/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 13	Cod	EU
Chlorantraniliprole	0.25	---	---
	13. United States does not maintain a specific MRL for the Chlorantraniliprole/Chayote, fruit combination, but does maintain an MRL of 0.25 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 14	Cod	EU
Chlorothalonil	5	---	---
	14. United States does not maintain a specific MRL for the Chlorothalonil/Chayote, fruit combination, but does maintain an MRL of 5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Clethodim	0.5	---	---
	US 15	Cod	EU
Clomazone	0.05	---	---
	15. United States does not maintain a specific MRL for the Clomazone/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Cyazofamid	0.1	---	---
	US 16	Cod	EU
Cyfluthrin	0.1	---	---
	16. United States does not maintain a specific MRL for the Cyfluthrin/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 17	Cod	EU
Cymoxanil	0.05	---	---
	17. United States does not maintain a specific MRL for the Cymoxanil/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 18	Cod	EU
Cyprodinil	0.7	---	---
	18. United States does not maintain a specific MRL for the Cyprodinil/Chayote, fruit combination, but does maintain an MRL of 0.7 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 19	Cod	EU
Cyromazine	1	---	---
	19. United States does not maintain a specific MRL for the Cyromazine/Chayote, fruit combination, but does maintain an MRL of 1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod 20	EU
Deltamethrin	0.2	0.2	---
	20. Codex does not maintain a specific MRL for the Deltamethrin/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 21	Cod	EU
Dicofol	2	---	---
	21. United States does not maintain a specific MRL for the Dicofol/Chayote, fruit combination, but does maintain an MRL of 2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 22	Cod 23	EU
Dimethomorph	0.5	0.5	---

	22. United States does not maintain a specific MRL for the Dimethomorph/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	23. Codex does not maintain a specific MRL for the Dimethomorph/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 24	Cod	EU
Dinotefuran	0.5	---	---
	24. United States does not maintain a specific MRL for the Dinotefuran/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Endosulfan	1	---	---
	US 25	Cod	EU
Ethalfuralin	0.05	---	---
	25. United States does not maintain a specific MRL for the Ethalfuralin/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 26	Cod	EU
Famoxadone	0.3	---	---
	26. United States does not maintain a specific MRL for the Famoxadone/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 27	Cod	EU
Fenamidone	0.15	---	---
	27. United States does not maintain a specific MRL for the Fenamidone/Chayote, fruit combination, but does maintain an MRL of 0.15 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 28	Cod	EU
Fenpropathrin	0.5	---	---
	28. United States does not maintain a specific MRL for the Fenpropathrin/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Squash/Cucumber Subgroup 9B" group.		
	US 29	Cod	EU
Flonicamid	0.4	---	---
	29. United States does not maintain a specific MRL for the Flonicamid/Chayote, fruit combination, but does maintain an MRL of 0.4 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 30	Cod	EU
Flubendiamide	0.2	---	---
	30. United States does not maintain a specific MRL for the Flubendiamide/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 31	Cod	EU
Fludioxonil	0.45	---	---
	31. United States does not maintain a specific MRL for the Fludioxonil/Chayote, fruit combination, but does maintain an MRL of 0.45 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Flumioxazin	0.02	---	---
	US 32	Cod	EU
Fluopicolide	0.5	---	---
	32. United States does not maintain a specific MRL for the Fluopicolide/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 33	Cod	EU
Fosetyl-Al	15	---	---
	33. United States does not maintain a specific MRL for the Fosetyl-Al/Chayote, fruit combination, but does maintain an MRL of 15 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 34	Cod	EU
Glyphosate	0.5	---	---
	34. United States does not maintain a specific MRL for the Glyphosate/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Halosulfuron-methyl	0.5	---	---

	US 35	Cod	EU
Imidacloprid	0.5	---	---
	35. United States does not maintain a specific MRL for the Imidacloprid/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Indoxacarb	0.6	---	---
	US 36	Cod	EU
Kresoxim-methyl	0.4	---	---
	36. United States does not maintain a specific MRL for the Kresoxim-methyl/Chayote, fruit combination, but does maintain an MRL of 0.4 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 37	Cod	EU
Lambda Cyhalothrin	0.05	---	---
	37. United States does not maintain a specific MRL for the Lambda Cyhalothrin/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Malathion	8	---	---
	US 38	Cod	EU
Mandipropamid	0.6	---	---
	38. United States does not maintain a specific MRL for the Mandipropamid/Chayote, fruit combination, but does maintain an MRL of 0.6 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 39	Cod	EU
Metalaxyl	1	---	---
	39. United States does not maintain a specific MRL for the Metalaxyl/Chayote, fruit combination, but does maintain an MRL of 1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 40	Cod	EU
Methoxyfenozide	0.3	---	---
	40. United States does not maintain a specific MRL for the Methoxyfenozide/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 41	Cod	EU
Myclobutanil	0.2	---	---
	41. United States does not maintain a specific MRL for the Myclobutanil/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 42	Cod 43	EU
Paraquat dichloride	0.05	{0.02}	---
	42. United States does not maintain a specific MRL for the Paraquat dichloride/Chayote, fruit combination, but does maintain an MRL of 0.05 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	43. Codex does not maintain a specific MRL for the Paraquat dichloride/Chayote, fruit combination, but does maintain an MRL of 0.02 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 44	Cod	EU
Permethrin	1.5	---	---
	44. United States does not maintain a specific MRL for the Permethrin/Chayote, fruit combination, but does maintain an MRL of 1.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod 45	EU
Propamocarb hydrochloride	1.5	5	---
	45. Codex does not maintain a specific MRL for the Propamocarb hydrochloride/Chayote, fruit combination, but does maintain an MRL of 5 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 46	Cod	EU
Pymetrozine	0.1	---	---
	46. United States does not maintain a specific MRL for the Pymetrozine/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 47	Cod	EU
Pyraclostrobin	0.5	---	---
	47. United States does not maintain a specific MRL for the Pyraclostrobin/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		

	US 48	Cod	EU
Pyriproxyfen	0.1	---	---
	48. United States does not maintain a specific MRL for the Pyriproxyfen/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 49	Cod	EU
Sethoxydim	4	---	---
	49. United States does not maintain a specific MRL for the Sethoxydim/Chayote, fruit combination, but does maintain an MRL of 4 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 50	Cod	EU
Spinetoram	0.3	---	---
	50. United States does not maintain a specific MRL for the Spinetoram/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 51	Cod 52	EU
Spinosad	0.3	{0.2}	---
	51. United States does not maintain a specific MRL for the Spinosad/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	52. Codex does not maintain a specific MRL for the Spinosad/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 53	Cod	EU
Spiromesifen	0.1	---	---
	53. United States does not maintain a specific MRL for the Spiromesifen/Chayote, fruit combination, but does maintain an MRL of 0.1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 54	Cod	EU
Spirotetramat	0.3	---	---
	54. United States does not maintain a specific MRL for the Spirotetramat/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 55	Cod	EU
Tebuconazole	0.09	---	---
	55. United States does not maintain a specific MRL for the Tebuconazole/Chayote, fruit combination, but does maintain an MRL of 0.09 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 56	Cod	EU
Thiamethoxam	0.2	---	---
	56. United States does not maintain a specific MRL for the Thiamethoxam/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 57	Cod	EU
Thiophanate-methyl	1	---	---
	57. United States does not maintain a specific MRL for the Thiophanate-methyl/Chayote, fruit combination, but does maintain an MRL of 1 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US 58	Cod 59	EU
Trifloxystrobin	0.5	{0.3}	---
	58. United States does not maintain a specific MRL for the Trifloxystrobin/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	59. Codex does not maintain a specific MRL for the Trifloxystrobin/Chayote, fruit combination, but does maintain an MRL of 0.3 PPM for its "Fruiting vegetables, Cucurbits" group.		
	US 60	Cod	EU
Triflumizole	0.5	---	---
	60. United States does not maintain a specific MRL for the Triflumizole/Chayote, fruit combination, but does maintain an MRL of 0.5 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Trifluralin	0.05	---	---
	US 61	Cod	EU
Zeta-Cypermethrin	0.2	---	---
	61. United States does not maintain a specific MRL for the Zeta-Cypermethrin/Chayote, fruit combination, but does maintain an MRL of 0.2 PPM for its "Vegetable, Cucurbit, Group 9" group.		
	US	Cod	EU
Zoxamide	1	---	---

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