Crop: Christmas Cherry Christmas Pepper
Scientific Name: Solanum pseudo-capsicum
Capsicum spp. (Solanaceae)

I. Introduction

A. Christmas Cherry has round orange-red fruits while the Christmas pepper (or Ornamental pepper) usually has tapered yellow, orange-red or red fruits.

B. The Christmas Cherry is probably native to Madeira which is an island outside Portugal, 600 miles south-west of Lisabon.

1. The island has an annual mean temperature of 18°C (65°F) with extremes of 9-29°C (49-85°F).

2. Rainfall averages under 760 mm (30 inches).

C. The requirements of Christmas cherry and Christmas pepper are in many aspects similar.

II. Cultivars, Clones, Breeding, Development

A. Christmas Cherry

1. 'Christmas Jubilee' has white, yellow and orange fruits.

2. 'Giant Red Cherry' has fruits twice the size of regular Christmas cherry.

B. Christmas Pepper

1. 'Holiday Cheer' an all America Selection (AAS) in 1979. Looks like a Christmas cherry.

2. 'Red Missle', 'Holiday Flame' and 'Hotbed Slim' have long, narrow fruits.

III. Flower Induction Requirements

A. Plants are not sold for the flower but for the fruit.

B. Flowering occurs under good light conditions.

C. Day length is not a determining factor for flower initiation.

D. Plants grown in a greenhouse may need to be vibrated at least once a day to insure pollination. Plants grown outdoors are pollinated by wind and insects.

E. Fruit setting hormones (as for tomato) may be used to increase set in the greenhouses.

IV. Environmental Requirements

A. Light

1. Plants are grown in full sunlight.

2. They are sometimes grown outdoors during the summer without any shading.

B. Temperature

1. The recommended growing temperature is 18-21°C (65-70°F).

2. At temperatures below 16°C (60°F), more time is required for flowering, fruit set is poorer and fruit ripening is very slow compared to 18-21°C (65-70°F).

C. Water

1. The plants should be kept moist at all times.

2. Leaves turn yellow and abscise when plants are allowed to dry out.

D. Nutrition

1. Good nutrient conditions will reduce the occurrence of chlorotic leaves and will accelerate flowering and fruiting.

2. Start with 50 ppm nitrogen when the plants are small and increase the rate to 200 ppm as the plants mature.

3. Reduce the fertilizer rate to 100 ppm nitrogen when the fruits start changing color. The decreased fertilizer rate will increase postharvest life by 5-8 days.

4. During low light conditions, use fertilizers with at least 50% of the nitrogen in nitrate form.

V. Cultural Requirements

A. Propagation

1. Plants are propagated from seeds (12,000/oz for cherry, 9,000 per oz for pepper).

2. Seeds germinate at 21°C (70°F) in 12-15 days for the cherry and in 12 days for the pepper at 21-27°C (70-80°F).

3. Seeds should not be covered and require alternate light and dark for best germination.

B. Medium and Planting

1. A medium with good water holding capacity such as a mixture of peat:perlite (1:1) is adequate. The pH should be 6.0-6.5.

2. Transplant to 10 cm (4 inch) pots when seedlings are large enough to handle, approximately 2 weeks after sowing. Only one seedling per container is required.

C. Spacing

1. Space plants so the leaves do not overlap.

2. A final spacing of 25 by 25 cm (10 X 10 inches) is suitable for 10 cm (4 inch) pots.

D. Support

1. None

E. Pinching

1. Usually not required.

F. Disbudding

1. None

G. Growth Regulators

1. Growth regulators are normally not required to control height.

2. Ethephon will reduce the time between fruit set and ripening. Application of 150 ppm Ethephon when the fruits have the size of a pea, may reduce production time by 7-14 days without causing any damage to the plants.

VI. Problems

A. Insects

1. Aphids and spider mites can attack the plants. Use appropriate insecticides.

B. Diseases

1. Stem and root rots (*Pythium* and *Phytophthora*) can be a problem. Control with standard chemical fungicides.

VII. Harvesting, Handling, Marketing

A. The plants should be marketed when about half the fruits are ripe. If marketed too early, much of the fruit will not ripen in a low light environment.

B. Care must be taken as fruit can easily be broken off the plants.

C. The plants can be stored in the dark up to 4 days without any damage to leaves or fruits.

VII. Scheduling

Growing Time For Cultural Segment	Cultural Procedure	Temperature
	Sow Seed	21-25°C (70-75°F)
2-3 weeks	↓	
	Transplant to 10 cm (4 inch) pots	18-21°C (65-70°F)
4-5 weeks	↓	
	Flowering	18-21°C (65-70°F)
3-4 weeks	↓	
	Fruit Set	18-21°C (65-70°F)
5-6 weeks	↓	
	Fruit ripening	

[z]Optional