

**Abstract**

Research Title : Tubtimjun Rose Apple production for export.

Author : Mrs. Wannee Sutthachaidee

Academic Year: 2016

.....

The objective of this research was to aimed 1) to study the effective production of Tubtimjun rose apple and the focus on the environment and context of the Tubtimjun rose apple. This study required using a sample of areas of Ratchaburi Province, with an area of growing Tubtimjun rose apple, 2) to present information from the study to guide the development of Tubtimjun rose apple to for export. This research was qualitative research with data observation and in-depth interviews with a group of farmers participating he use of hybrid technology to control fruit fly in Ratchaburi between 2015 and 2016 with 68 samples. The study focused on the logistics activities from raw materials used to grow Tubtimjun rose apple. The process for producing Tubtimjun rose apple custody from the output to the finish goods was the brainchild of Tubtimjun rose apple and the data were analyzed by content analysis to synthesis and integration in education them together.

The results revealed that, Farmers are male, 72.06 percent and 27.94 percent of female. Most had experienced in gardening, Tubtimjun rose apple for 6-10 years. 66.18 percent 1-5 years' experience, 19.12 percent of the area planted with Tubtimjun rose apple 6-10 rai. 42.65 percent of rose apple by an annual average of 4-6 tones. 55.88 percent of the income from Tubtimjun rose apple 500001-700000 baht per year. 47.06 percent the average annual income of 700,001 baht that 22.06 percent.

Raw Materials refers to the cultivation of Tubtimjun rose apple varieties: soil and water, including Tubtimjun rose apple species originated from Indonesia. The species with most used methods of grafting Tubtimjun rose apple can be grown on all soil conditions and soil with manure and compost to friable. The soil as fertilizer, according to the state of the rose apple trees in each period. The fertilizer must comply with the GAP and IMP according to the conditions of each rose apple. For example, during

(6)

pruning, the bud, during flowering and wrapped before harvesting. Tubtimjun rose apple is, in fact, a fruit that needs the water by condition of the rose apple trees. Rose apple garden in Ratchaburi province has been planted a groove. There is no problem in the maintenance of water about rose apple trees. First period, it should be watered once a day. Long before fruiting should water 5-7 times per day. The next stage should provide the water 2-3 times per day if the soil moisture is not good should be watered every day or every other day. Avoid water-filled basin around the tree and should refrain water about 7-10 days before harvest to keep up with a sweet rose apple.

Process refers to the process of producing Tubtimjun rose apple. Begins with planting groove width approximately 6 meters, grooves approx. 2 meters and 1.5 meters deep. Distance between trees 4-5 meters. Use the good branch look like other rose apple around 1.5 - 2 years can be grown. The yield of Tubtimjun rose apple throughout the year will take around 90 days. The period from flowering to wrap around 60 days. From 30 days to harvest and wrap. Rose apple will yield during the regular season in a third period. First period December to January, second period February to March and the third period April to May. Production must take care of the water 2-3 day per once. Maintenance during the Rose apple must be accumulated by a 15-5-20 fertilizer and interspersed with 12-12-17. Rose apple, which makes the flowering and fruiting. The amount of fertilizer to be observed is the flower, unless it has flower should be used 2 grams per plant, If they have the flowers have to put limits 4.5-5 per plant. Fertilizer every seven days. Pruning cut the branches are brown, after pruning, just over 10 days rose apples are flowering. Rose apples that are fertilizer to nourish all makes perfect trees can be flowering in the desired range. Foliar fertilizer used to nourish 7-12-40+zinc occasionally sprays. Calcium - Boron spray every seven days continuously. Along with spraying disinfectant with Propineb and Ditane M. The insecticides will Mala Tai Python. The insecticides are Malathyon and Chlorpyrifos sprayed alternately. Making rose apple yield in the off-season to control the bud. If the shoots separated, the shoots are needed to cut out. Uses chemical fertilizer 15-15-15 or 16-16-16. Create flowers bud using chemical fertilizer 12-24-12 or 8-24-24. Nurture of chemical fertilizer 15-15-15 or 16-16-16. Improve productivity chemical fertilizer 13-13-21. Watering, before fruiting period rose apple should be watered for 5-7 days to fully until the soil with moisturizing. Should water 2-3 days. And stop watering before harvesting approximately 7-10 days. To make the rose apples are sweeter. Rose apple will be well-sold during July to

September. Preparing the well-sold period for high quality with the high requirement during March-April. Wrapping, after flowering approximately 2 months. Rose apples are able to wrap by choosing the perfectly 3-4 a bunch. The selected bunch or a pole pointing down. And should be out in the inflorescence branches. Do not take out a bunch of the ends of branches because the rose apples are not perfect because transporting food to be less than inflorescence around branches. Wrapped by the plastic bags of Department of Agriculture, which is a bag that can prevent the penetration of the apple pests. Pest management, major pest of quarantine pests are five types. *Bactrocera dorsalis* (Hendel), *B.correcta* (Bezzi), *B.carambolae* Drew & hancock, for instance. Rose apples are eaten by all those three species such as worm. These activities can cause the rose apples to be rotten. If the worms spawn, will grow within seven days. To prevent the use of poison protein. The average of poison protein 200 ml. Mixed with pesticides 40 ml. and water 5 liters. Spray 4 points for a tree every evening for 7 days. Can prevent and get rid from all of the pests. Must take care of the groove and keep it clean. Get rid of the place where the pests can be spawned and hang the trap Methyl Eugenol every groove, which is lure insects substance. To get rid of adult males not to breed and wrapped by the properly plastic bag. The forth pest is mealy bug, embryo and adults suck sap from young leaves, shoots and flowers and also rose apple. Burning leaves, crook and deformation. Flowers are fall and fruits are not set. The rose apples will fall and will be out of shape by preventing be sprayed Cyhalothrin L 2.5% EC. 10 cc. per 20 liters of water or Formetanate 25% SP. 30 grams per 20 liters of water. The last pests are red worms. Rose apples are eaten by red worms before harvesting. The excretion of the worm would be dirty and rotten the fruits. The mature worms are red. Then, pupate in the soil. To destroyed while the rose apple flowering. Protection by sprayed Methamidophos 60% SL. 30 cc. per 20 liters of water. Spray the flowers when began to bloom and the flower buds 1 time. Then, spraying after fruit set 2-3 times until wrapped. The weeding by hoe and shoveling mulch with straw or rose apple leaves that are fall in the dry season to prevent evaporation of water and drainage in the rainy season.

Finish Goods, Tubtimjun rose apple are ready to harvest are 90 days with plump, red shiny skin and high sweetness. If left up to the age of the harvest rose apple will fall and wound. The rose apple will harvest in sunshine morning for fresh color and release the water to protect. Tubtimjunrose apple will be exported to the standards of

the farm was approved by the Ministry of Agriculture and Cooperatives. The quality management system of agricultural practices that are good for plants. (Vegetation GAP) And Integrated Pest Management (IPM). The quality of Tubtimjun rose apples can be divided into five size, L the small size approximately 11-12 per kilograms, LL 9-10 per kilograms, XL 7-8 per kilograms and XXL 5-6 per kilograms. Rose apples are required by China especially Chinese New Year and make a sacrifice to gods. However, the set of regulations to exporting are very strict, some of the farmer cannot export their rose apples to China.

The results of this study provided, The raw data was focused on selecting the healthy branch. Tubtimjun rose apple can be grown in any soil types. Planting the ground and the groove. The fertilizer will provide both the roots and the leaves. Focus on organic fertilizers, manure and compost. The chemical fertilizer in limited quantities to in compliance of Good Agriculture Practices (GAP) and Integrated Pest Management (IPM) which are allowed by Department of Agriculture Ministry of Agriculture and Cooperatives and as a condition to export Tubtimjun rose apple abroad. The farmers will use the expertise of experience in providing raw material to affect the quality of the rose apple on a period in the maintenance of the plant, cutting, stick the flowers, wrap and harvest productivity. The growing Tubtimjun rose apple, provider suggests that in rose apple production process has the quality to export growers need skilled care and attention, as well, since growing. Maintenance Observe the change of climate, soil, water, wind, rain, cold, hot. That can affect the production of rose apple has been exhausted. Process to start planting, planting groove can be care better than garden because it is easily to maintenance.

The quality of Tubtimjunrose apples is generally divided into five sizes: L, the smallest size approximately 11-12 per kilograms, LL 9-10 per kilograms, XL 7-8 per kilograms and XXL 5-6 per kilograms. The yearly output can be exported at any of more than 1,000 tons according to the Ministry of Agriculture and Tubtimjunrose apple growers estimated.

The market demand in China is still a high demand can be exported to be sold in important festivals of China, including to countries such as Singapore, Malaysia and Indonesia the origin of the Tubtimjun rose apple.

Suggestion from the Research

(9)

1. Planning, Demand Forecasting and the quantity rose apple each year to sufficient and can be distributed to consumers by comprehensively by logistics supporting system to standardize more products.

2. To support the planting of apple Ruby productivity, quality, size, color, taste and to provide farmers with income from rose apple over the cost of care, maintenance that the relatively high cost currently.