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A Study On Water Melon Cultivation On – Overview

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Abstract
Watermelon is a warm-season crop related to cantaloupe, squash, cucumber and pumpkin. Watermelons can be grown on any well-drained soil throughout Georgia but are particularly well adapted to the Coastal Plain soils Watermelons will continue to be an important part of vegetable production in the state. Increases in average yield per acre will continue as more growers adopt plastic mulch, intensive management and new hybrid varieties Watermelons range in shape from round to oblong. Rind colors can be light to dark green with or without stripes. Flesh colors can be dark red, red or yellow. Watermelon varieties fall into three broad classes based on how the seed were developed: open-pollinated, F1 hybrid, and triploid or seedless. Moreover leveling of flood channels in paddy fields started inducing flood problems in different parts of the State, which aggravated ground water depletion during summer. The combined effect of environmental and farm degradation.
Keyword: Watermelon**,** Cantaloupe, Squash, Adaption, Profitability

Introduction
Watermelon (Citrullus lanatus) is thought to be native of the Kalahari Desert in Africa. The crop is grown commercially in areas with long frost-free warm periods (Prohens and Nuez, 2008). The global consumption of the crop is greater than that of any other cucurbit (Adeoye et la., 2007). Watermelon is also used in many versatile preparations such as jelly pie, mouse, salsa, sherbet, muffin, sauce, cake and sandwich. Watermelon rinds also edible and sometimes used as a vegetable. In china they are stir-fried stewed or often pickled. When stir- fried, the de-skinned and de-fruited rind is cooked with olive, oil, garlic, chilly, peppers, scallions, sugar and rum. Every part of the fruit is edible. In some Asian countries roasted seeds are seasoned to make a snack or ground and made into bread. The seeds are a rich source of protein. Watermelon juice can also be made into wine. It is also commonly used to make a variety of salads, most notably fruit salad. They are used to make jams due to their high content of fiber. The utility of watermelon rises in the month of Ramazan. The juicy and succulent fruit is sought after those adhering to the code of fasting.
China, Turkey, Brazil, United States, Egypt and Russian Federation are the major watermelon producers. It is one of the most widely cultivated crops in the word at large and the global production in the year 2010 reached 7, 34,90,835 metric tones (FAO, 2010). In the year 2011, 3,53,500 metric tones of watermelon are produced in India. Watermelons are mainly cultivated in Maharastra, Karnataka, Tamilnadu, Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh. They are being grown in several places in Tamilnadu including Erode, Ariyalur, Tuticorin, Villupuram, Salem and Coimbatore.

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Suitability for Summer Cultivation

Watermelon is a warm seasonal crop. It is the most popular summer fruits in India. Watermelons and Indian summers are made for each other. Summer and Watermelon are inseparable. Watermelon is probably the most suitable crop for the summer cultivation. It is usually planted in the dry season when the soil is warm and frost free which mostly results to larger fruits of watermelon. Optimal crop growth if temperature is above 38˚c. Optimum temperature for germination is 28-32˚C. This crop has tolerated the warm of the sun. Watermelon not only tolerates hot weather but for best growth requires more heat than any other vegetables. It requires hot dry climate and plenty of sunshine. In rainy season it does not grow well but now a days it has been cultivating throughout the year. Continuous rainfall will reduce the sugar content in the fruit. When the temperature rises, the sugar content will also be increased. It is considered one of the best storable forms of 'cultivated water'. Even today some African countries cultivate watermelon for use as a drink. Day-by-day summer days have been increasing; demand of the watermelon is also increasing. We can find watermelon in our markets throughout the year, the season for watermelon is the summer when they are sweet and of the best quality.

Lucrative Earning to Small Farmers

Watermelon is a short term crop. It gives good earning to farmers within 90 days. Even if it is done in small acreage, a farmer can earn a good profit. Watermelons are becoming a very important source of income for small scale farmers of the semi-arid tropics of West Africa (Fatondji, D 2008). Recent report indicated that exotic vegetables production generate higher profit, provide more employment and income to the farmers than those of indigenous vegetables, knowledge of availability of aggregated farm level resources and differences in their productivities are essential in order to enhance productive capacity of the smallholder farmers (Ajewole and Folayan, 2008).

In southern Tamilnadu, this crop cultivation has been popular now-a-days because of its short duration seeking less labour and high profit. The crop is the major source of income and employment for rural household in the predominantly watermelon growing state of Tamilnadu where large number of farmers are involved in watermelon cultivation. A maximum of 20-25 tonnes of watermelons could be cultivated on one acre. Farmers should implement new technologies if they must succeed. Whether it is one acre or 100 acres, a farmer must be willing to try new techniques and learn from past mistake. Farmers must become more aware about the marketing avenues for their crops. They should grow only those crops which have marketable qualities.

Nutritional Value to Health

Watermelons have 92% water by weight. It is a thirst quencher in hot summer″ days. It is a nature's gift to beat the scorching summer heat. It is an excellent fruit, which can work wonders for human skin. It acts as a″ natural moisturizer as well as a toner and keeps the skin cool, glowing and fresh. It has a good source of potassium; which helps in controlling blood pressure″ thereby ensuring the health of one's heart. Watermelon also rich in lycopene an antioxidant it may help the body fight cancer″ and prevent disease. Studies have also shown that lycopene protects skin damage from UV rays and from prostate cancer. Watermelon is an excellent source of vitamin A; which helps to protect from lung″ and oral cavity cancer. Watermelons are very low in calories and fat, which considered an ideal diet food″ and is high in energy, making it a great energy boost. Watermelon contains high on calcium. It helps build up strong bones.″ It cleansing and natural diuretic properties help in curing kidney and bladder″ problems. A 100 gm. of watermelon fruit contains the following nutrients.

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Watermelon breeding

Although the watermelon, citrullus vulgaris schrad., has been cultivated in America since 1629 (Jones and Rosa, 1928) and in Africa for over 4,000 years (Hays and Garber, 1927), relatively little attention has been give to the effects of inbreeding to environment factors affecting fruit setting, or to measured varietal improvement through modern breeding methods. The effects of inbreeding assume economic importance because many watermelon varieties, normally subject to extensive cross- pollination, are apparently heterozygous as to many characters, particularly those affecting plant vigor; size, shape and color of fruit; color and texture of flesh; sugar content; and certain seed characters.

Doubtless the most important improveemtn needed in watermelon is the development of strains resistance to the wilt disease, caused by Fusarium niveum E.F.S. Wilt is now a factor limiting production in the Sacramento, San Joaquin valleys of California and in many other states. As the fungus is well established in the southern states, growers have some difficulty in locating disease-free soil. A single crop of watermelons often contaminates the soil the extent that all subsequent crops may be seriously infected. Eventually, therefore, all the watermelon districts, each demanding a particular type of fruit, will probably need wilt-resistant strains.

Steps in watermelon cultivation

Watermelon is relished by many people across the world as a fresh fruit. This is because watermelon is known to be low in calories but highly nutritious and thirst-quenching it also contains vitamin C and A in form of the disease fighting beta-carotene. Lycopene and beta-carotene work in conjunction with other plant chemicals not found in vitamin/mineral supplements. Potassium is also available in it which is believed to help in the control of blood pressure and possibly prevent strokes. Watermelon is considered to be native to Africa, although it was found growing wild by Livingstone in 1854 on the American continent. In India, watermelons grows well both in the humid and drier savanna agro ecologies, but foliar diseases are less destructive in the drier climates. This is because it requires warm climate and relatively long growing season.

The largest production of the crop comes from the northern part of India where the suitable agro ecology is found; nevertheless, a good crop could also be achieved in other agro ecologies with intensive management and is still economically feasible. The potentials of watermelon as cash producing crop in enormous for farmers especially those residing near the urban areas.

Marketing Methods

There is no particular best method of marketing watermelons. Growers should determine which methods are available to them and use the marketing method that is expected to return the most income for their land, labor, management and time. The different marketing methods include:

- Selling the field
- Selling through the Cordele market
- Retailing at farmers markets
- Selling direct to truckers or stores
- Selling through brokers or shippers

The field method of sales, whether by acre or by pound, is preferred by many growers because it is relatively simple basically, the grower finds a buyer willing to purchase the entire field. Often, the buyer does the harvesting. Large watermelon growers (more than 20 acres) generally use brokers. Brokers or shippers are capable of handling the large volume sales that these growers require. Brokers provide the marketing services that individual growers are not able to provide. They have contacts in the major markets so that they can move large volumes of melons over an extended period of time.

Their contacts with both producers and buyers allow for matching buyers' needs with what the producers have. The matches include volume, variety, size, transportation, etc. Smaller growers

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use the Cordele market (less than 20 acres), by large growers as a convenient location to weigh loads on their way to market, and as a location for out-oftown brokers. More than half of the annual Georgia volume goes through this market. The grower is responsible for harvesting and hauling to the market. Melons sold through this market are exposed to more potential buyers than through field sales. Farmers market retail sales should result in higher prices than other methods. The grower is responsible for the marketing functions of harvesting, transporting and selling. The amount of time required to sell a load through this method is so great that large acreage growers are not able to move enough melons this way. Direct sales to truckers or to chains is a reasonable marketing method for the grower who has the contacts. The growers' volume must match their contacts' needs. Matching needs with volume is difficult, which often prevents this method from being used.

Conclusion

Watermelons are considered optimum for eating when their flesh matures to produce a sweet flavour, crisp texture and deep red colour. It has high medicinal values. Day-by-day the summer days have been increasing in Tamilnadu. Due to the climatic conditions the domestic demand for watermelon has been steadily increasing during the last decade. One who cultivate the watermelon in the month of December - February they can get an assured profit.

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