

Tissue culture Blueberry Plants

Profitable Niche Farming

AG Biotech Laboratories
Hyderabad



About Blueberry plants

- ❑ Blueberries are the fruits of a shrub that belong to the Ericaceae family.
- ❑ Blueberries grow in clusters and range in size from that of a small pea to a marble.
- ❑ Blueberries are at their best from May through October when they are in season.
- ❑ Blueberries are hardy perennial flowering plants, usually erect in nature vary in size from two to four meters in height and live up to 40 to 50 years.

Blueberry growing areas

Blueberries are mostly grown in USA, Canada, Europe and since 1970, Australia and lately, Mexico and other Southern American countries have started with commercial cultivation.

In India, Blueberries are introduced in places like Sikkim, Mahabhaleshwor, Chennai, Dehradun, Hyderabad and Punjab.

Blueberry Fruits Health benefits

- ❑ Blueberries have reached 'superstar' status for their unique health benefits as reported by popular press.
- ❑ Virtually the blueberry phytonutrients function both as antioxidants and as antiinflammatory compounds in the body,
- ❑ Well researched health benefits offered by blueberries are Whole Body Antioxidant Support, Cardiovascular Benefits, Cognitive Benefits, Blood Sugar Benefits, Eye Health and Anti-cancer Benefits.

Tissue culture process at AG Biotech



TISSUE CULTURED BLUBERRY PLANTS HARDENING PROCESS FOR PLANTING



AG Biotech Tissue cultured Blueberry plants growing in bags



Advantages of Growing Blueberries in Green House in India

- a. Yields in the Green house will be more consistent every year compared to growing outdoors.
- b. Yields of Blueberry increase by double in most situations if grown in Green House verses outdoor growing.
- c. Fruit quality of fruits is higher.
- d. Plants remain healthy due to protection from climate fluctuations.
- e. Water requirements are less. This is a cost savings if the water must be treated.
- f. Fertilizer requirements are less.
- g. Soil amending is less costly per hectare.
- h. Freezes during flowering is minimized.
- i. Excess rainfall will not affect the plants.
- j. Bird control of eating fruits is 100% controlled.
- k. Plants are protected from extreme wind

AG Bioteck Tc Blueberry growing in bags under Green House



Blueberry production

1. Prepare soil to obtain the desired ph, loose soil texture for oxygen, water, and nutrients.
 - a. In heavy or low organic soils, incorporate an organic soil amendment.
 - b. Form a hill with the mixed soil amendment 15 to 22 cm. high and 60 to 75 cm. wide for drainage.
2. Install drip irrigation for irrigating and fertilizing.
3. In climates without chilling hours (0 to 7 C), plants will grow vegetatively, (evergreen) and are capable of yielding fruit almost month of the year.
4. In climates with sufficient chilling hours (0 to 7 C), plants will go thru natural dormancy during this period. Once the dormancy period is final, the plants will resume growth and flower. From flower to ripe fruit, the average ripening date is 45 to 60 days depending upon the plant cultivar and type.

AG Biotech TC Blueberry in flowering



Blueberry yielding

1. Plant size 15 to 25 cm. and 25 to 45 cm. branches.
2. First harvest 18 months after planting.
3. Yield of 1.25 kilo per plant.
4. Second harvest 12 months after the first harvest.
5. Yield of 3 -3.5 kilo per plant.
6. Third and future harvests will occur 12 months after the previous harvest season
with the same yields of 3 to 3.5 per plant.
7. Longevity of optimum yields per plant are 8 to 10 years.

Land Preparation

- Land cleaning
- Leveling
- Ridge & furrow formation
- Fumigation?
- Etc.

Soil Test

- Analysis should incorporate a basic panel
- pH
- Bicarbonates
- Electro-Conductivity
- Available organic carbon

Crop Establishment

Soil Prep

- Apply soil amendments
- Apply pre-plant fertilizer
- Apply organic material (coconut chips/wood)
- Incorporate all materials
- Shape ridges
- Cut V on top of ridges

Soils & Plant Health

- Blueberries grow best in sandy and sandyloam soils
- Blueberries are difficult to grow in clay soils
- pH is probably not as critical as irrigation water bi-carbonates

Factors Influencing Cultivar Health & Productivity

- Differential irrigation requirements
- Crop nutrition
- Plant spacing
- Productive life potential
- Susceptibility to insect & disease pressure
- Pruning method

Crop Establishment Blueberry Planting











Hoop house









Ambient Temperature Cooling



Important Blueberry Cultivars



JEWEL













Driscoll Strawberry Associates, Inc.
Watsonville, California 95077-2892
Product of U.S.A.

Driscoll's®
Blueberries

6-12 oz. Baskets 12-4.4 oz. Baskets
8-Dry Pints 12-6 oz. Baskets

CUT-1



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Blueberry Research initiated 1997, KAC









Thank you

