



BENEFITS OF STRAWBERRY CULTIVATION ON SOILLESS MEDIA AND ITS DEMERITS

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INTRODUCTION:

Strawberry is one of the most superior fruit which has attained a premier position in the fresh fruit market as well as processing industries of the world due to its highly desirable taste and flavour. With the increased in population, the demand for strawberries round the year has increased too and it is met through soilless cultivation. The highly succeeding future of soilless culture greatly depend on the development of new production system and substrates that are competitive in costs and returns with conventional area agriculture even though soilless culture results in maximum yields as well as economically convenient in high populated and expensive land areas. The type, volume, dimensions of containers as well as their arrangement inside the polyhouse greatly determine the growth and yield of strawberry plants.

EXAMPLES OF SOME SOILLESS MEDIA:

COCOPEAT: Natural fibre made out of coconut husks and is 100% natural growing medium. It helps the strawberry plants to develop strong root system and vigour and, also has the ability to retain nutrients against leaching. It has good drainage and aeration capacity and pH range is 5.7-6.8

VERMICULITE: One of the popular soilless potting mix. It has high ability to retain nutrient, high water absorption capacity, neutral pH and light weight properties.

SAND: Sand is heaviest in weight and the least expensive media available.

RICE HULLS: Rice hulls are perfect for drainage improvement in potting media.

BENEFITS OF SOILLESS MEDIA:

Since soilless growing is becoming an attractive option because of the contamination of agricultural land due to the use of excessive

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fertilizers and insecticides resulting in soil borne diseases, problems such as drainage, poor structure, salt accumulation and soil fumigation to get higher productivity per unit area and the yield advantage with soilless culture getting more yield per unit area than conventional growing.

Strawberries cultivated in soilless media therefore result in better vegetative growth parameters, number of fruits and yield of good quality strawberry fruits and for producers who want to develop sustainable production methods that increase the competitiveness of strawberry cultivation.

QUALITIES OF SOILLESS MEDIA:

- Lighter than soil in weight
- Lesser chance of contamination
- Unique water holding and moisture retention capacity at low tensions
- Releases mineral elements after decomposition

DEMERITS:

- ❖ Substrates having high water holding capacity can disturb the respiration of the roots.
- ❖ High investment and energy cost
- ❖ All growing mediums cannot be reused.
- ❖ In case of very light substrates, it is unable to hold the plant in correct position
- ❖ Requires regular watering

- ❖ Can become hydrophobic once completely dry.

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