

GARDENING SERIES



VEGETABLE GROWING



S. C. DEY

GROWING

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Agrobios (India)

Dedicated to
Shri Ashis Dey

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Preface

The Indians are mainly vegetarian. India today has earmarked its vegetable production just to surpass any other country of the world. At present in India vegetables are grown in five million hectares of land and the production rises to 50 million tonnes per annum. India is the second largest country in the production of vegetable, still the per capita consumption is comparatively small. Hence more production is needed to cope with the demand.

The garden-fresh vegetables are more crisp and tasty than those which are sold by the green grocers. The fresh vegetables have more vitamins. Therefore, every house owner should have a kitchen garden to get fresh vegetable. Growing vegetable in home gardens has a special charm with a joy of creation. Generally, the housewives are more interested in kitchen gardening. The attraction of the fresh vegetables from one's own garden excites interest in gardening.

Growing vegetable is comparatively easy. It takes less time than growing cereals. In the context of these aspects, vegetable growing should be increased to replace cereal in our dietary to some extent. Many people take to growing vegetables in view of more financial gain. The present book will provide up to date knowledge and will develop interest in general public for growing vegetable.

I am grateful to those who have extended their help in preparing the manuscript especially with the photographs. If the readers find it useful, the efforts of all who are involved in bringing out the book will be fruitful.

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Introduction

Quantitatively vegetable ranks after rice and wheat in our dietary. It, like fruit, supplies us vitamins and minerals. The tuberous and root vegetables are also the sources of carbohydrates like rice and wheat. The main sources of protein being milk, meat, egg etc. Beans and pulses are the vegetable sources of protein. Fats have also both animal and vegetable sources. In this context I am not hesitant to remark that the variety of vegetables can supply us all the food elements we need both qualitatively and quantitatively. Secondly the vegetable contains plenty of fibre which are hardly found in other food article excepting whole wheat (*atta*). Fibre has important role in preventing many deadly diseases which is discussed in the appendix A.

Both fruit and vegetable supply us vitamins and minerals in the main. For the obvious reasons vegetables are more cheaply available than fruits. Therefore we have to depend more on vegetable than on fruit. Secondly fruit juice cannot supply us fibre that we need in quantities.

Both generic and specific variations in vegetables are numerous. Most of them, however, are the choosers of the climatic and soil conditions. Due to the recent advances in the plant breeding science innumerable cultivars of each vegetable species have been originated in this country. And much more are being imported from other countries. The main characteristics of the new being high yielding with the disease resistant qualities which ensure more production with less plant protection measures. Previously the most vegetables were season-bound, i.e. their production were seasonal. But the new breeding technique has enabled to originate competent varieties for the year-round production. Radish, bottle gourd, bitter melon etc. are cited for

example. The twenty six agricultural universities together with the vegetable research stations under the auspices of Indian Council of Agricultural Research have a landmark in the sphere of originating innumerable varieties suitable for our climatic conditions. Some reputed enterprises have also undertaken vegetable breeding and attained a significant success that contributes largely to a sizeable production of vegetable and seed of the country. This is however imperative for growing food for the millions.

India today has earmarked its vegetable production just to surpass any other country of the world. At present it is being 50 million tonnes per year. The green vegetables are more perishable than fruits. Vegetables, like fruits, need to be preserved to prevent wastage through spoilage. So the high level of production envisages a plan for exporting fresh vegetables as well as the preserves. In the peak period a production especially in winter and spring exceeds much more than what is actually consumed. A popular proverb 'Eat what you can and can what you cannot' should be the slogan to face the crisis of vegetable shortage. If the surplus vegetables are canned to preserve for the lean period the shortage can be counteracted by preventing wastage.

The quality vegetables have a great demand in the urban markets both at home and abroad, and fetch a high price.

All the vegetable species dealt with herein have been classified scientifically to make their generic relations conspicuous and to show the likeness in their cultural operations.

Vegetables are grown in the large fields, backyards of the houses where fruit trees are not grown and in the small kitchen garden of 100 square metre or so. The pot growers practically have no garden space. Generally they grow vegetable on the front terraces or roof tops. The book is designed to cover the aspects involved in these type of culture.

To reinforce the text a good number of figures and photographs have been reproduced. Although the subject being a branch of agriculture the language used is free from the technical terms, that makes the literature understandable to one and all.

Seventy three species of vegetable comprising the tropical and temperate, have been discussed to make the book exhaustive and more useful to the growers than any other work of this category.

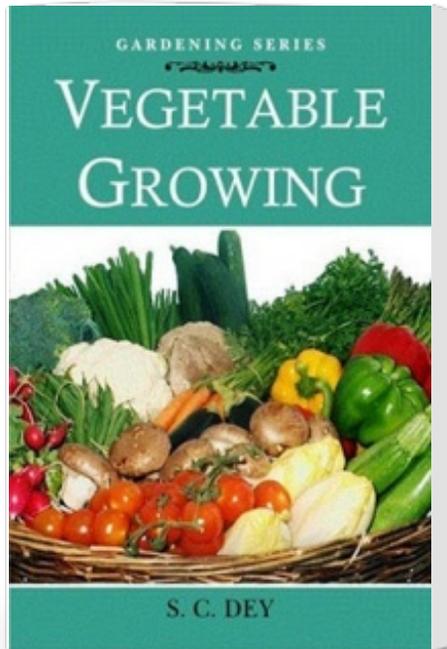
Why Vegetable?

The garden-fresh vegetables are more crisp and tasty than those which are sold by the green grocers. The fresh vegetables have more vitamins. So every house owner should have a kitchen garden or it becomes difficult to have the supply of fresh vegetable. Secondly growing vegetable in home gardens has a special charm with a joy of creation. Generally the housewives become more interested in kitchen gardening. The attraction of the fresh vegetables from one's own garden excites interest in gardening.

India being the second largest country in the production of vegetable. Still the per capita consumption is comparatively small. Hence more production is needed to cope with the demand. Secondly the quality production suitable for exporting and canning is however less than that of the developed countries. But the competent varieties for quality production are not wanting in this country. At present in India vegetables are grown in five million hectares of land and the production rises to 50 million tonnes per annum. By this quantity of production the per capita consumption cannot rise above 125 grams per day. But the people of the developed countries consume at least 200 grams of green vegetables which obviously excludes vegetables like potato, sweet potato, yam, taro etc. To meet our deficiency we need more production of 10 million tonnes. In the beginning of the next millennium our vegetable requirements will rise to 83 million tonne per annum.

In view of the rapid population increase of the world the demand of the staple food (wheat and rice) increases tremendously. As its production cannot cope with the demand the sources of supplementary food has to be explored. Reasonably we first aim at the vegetables especially the tuberous

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