

What Next in Fruit Research and Extension in Madras State

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Introduction: The achievements and results of economic importance in the sphere of fruit research in this State over the past twenty-five years are of no small order. A brief review of the progress in fruit research and extension is presented in the paper.

Fruit Research: Fruit research in the State may be said to have commenced in the year 1941 when a separate Fruit Section was formed. The following are some of the notable results achieved so far.

(a) *Temperate Fruits:* Pruning methods suited to different bearing habits of apples, plums, peaches, pear and persimmons were determined. The problem of mild winters and woolly aphid was got over, the first by linseed oil emulsion and Sandolin "A" Sprays and later by use of resistant Merton rootstocks. The pollination behaviour of plum varieties for recommending best inter-planting and top-working practices, a quick method of ripening persimmon fruits are some of the other results.

(b) *Sub-tropical fruits:* Citrus received major attention. Many of the results of research on this crop have passed into growers' practices. Lemons were popularised. Varietal introductions and devising suitable propagation techniques are the other achievements in other subtropical fruits, such as fig, pomegranate, avocado, passion fruit, etc.

Tropical Fruits: Work on tropical fruits was intensified. Evolution of new types through hybridisation in mango, purification in papaya, regulation of fruit harvests in pineapple through hormones, clonal propagation of cashew, optimum propagation techniques for all, including selection of suitable rootstocks are some of the major achievements.

Fruit Extension work: Horticultural extension work in the State is of very recent origin. For several years, it consisted only

in furnishing information and advice on specific problems and reached only some well-informed and enterprising growers. Since 1948, the work has been expanded with the initiation of a post-graduate course in Horticulture and with the establishment of four Model Orchards in representative fruit-growing regions.

The Future in Fruit Research: The review of past work highlights problems, areas and subjects that need further attention. The following suggestions may be given to further the cause of fruit development in the State.

(a) Importation of varieties from other countries to enrich collections. Systematic plant introduction on a well-regulated basis would immensely benefit the horticultural industry.

(b) Application of plant hormones and chemicals to the solution of specific problems in particular fruits (e. g.) difficulty to establish young transplants and incompatibility in grafting in mangosteen.

(c) Evolution of maturity standards and research on the usage of mechanical contrivances for judging correct maturity of fruits.

(d) Research on the utilisation of horticultural by products.

(f) There are several other problems specific to particular fruits, the solution of which would go a long way in the development of the fruit industry as a whole on sound economic lines. These include reinvestigation of propagational aspects, research on manurial and water requirements, plant protection in fruits, study of root-stocks cultivated and wild, etc.

The Future in Fruit Extension work: Madras State has done pioneering work in fruit extension work as already indicated. A network of ten more Model Orchards are proposed under the Second Plan. These are long-range measures. But short-term measures are necessary for speedy transmission of available data. A few of these are:—

(a) Organising fruit shows and exhibitions in different parts of seasons as a regular feature year after year.

(b) Periodical meetings in fruit-growing centres between research staff, extension workers and growers.

(c) Opening fruit parlours in railway stations and in central places in cities and towns with a nice display of scientific information.

(d) Publication of results in regional languages as handouts, press releases etc. and their door to door distribution.

(e) Imparting horticultural instruction in schools and colleges by special lectures by experts and film shows etc. Film shows may also be held in public cinema halls. Production of such feature films will have to be done by the Government.

(f) A separate Directorate in Horticulture will be necessary to put into operation the full programme of fruit research and extension.
