

## Modern Trends in Agricultural Education, Research and Extension in India

by Dr. S. KRISHNAMOORTHY,  
Head of the Dept. of Agriculture,  
Annamalai University.

The aim of this paper is to cover in a general way the trends in Agricultural education, research and extension, which have been noticed in recent years in India.

**Agricultural Education :** One of the latest trends in Agricultural Education in India is the spread of Agricultural Education itself all over the country in various forms from agriculture in the High Schools upwards to the Ph. D. in Agriculture. The Agricultural College and Research Institute, Coimbatore even a few years ago was the only institution of its kind in the whole of South India and it can be truly called the mother of all Agricultural Institutions in South India. To day there are Agricultural Colleges in Bapatla, (Andhra State), Osmania (Hyderabad State) Hebbal (Mysore State) and Trivandrum (T. C. State). In addition to this, the Annamalai University has also established an Independent Department of Agricultural and rural Institutions of Agriculture running three year diploma course have sprung up in Perianaickenpalayam, Coimbatore and in Gandhigram, Dindigul (Madurai District). It is a matter of pride to the Agricultural College, Coimbatore, that most of its alumini have been associated with all these comparatively recent offspring of this Institutions. All of us who are at present working outside the institution have received initially our inspiration for new ideas which we are experimenting with from this great Institution which is one of the greatest of its kind in this country.

Not many years ago, agriculture could be called an untouchable in the Universities of India. This was merely in tune with the patterns of thought which existed in the country as a whole, that for an educated man Agriculture was not a thing which was respectable. So much so, while the Government in each State established its own Agricultural Colleges to train men required for managing their department of Agriculture and for the purpose of award of degrees, and the Colleges were affiliated to the Universities, the Universities by themselves did not take much interest directly in Agricultural Education as such. But in recent years generally after

India attained its independence and particularly after the food situation in the country became a great problem, the whole country's thinking has been revolutionised and today it might be said in all confidence that agriculture occupies an important place in the minds of the people and in the plans of the Government. The Universities also have begun to take direct interest in Agriculture and Colleges of Agriculture and Institutes of Agriculture have become part of some of the residential Universities in India, such as the Banares University and Annamalai University.

One other thing which is a prominent feature in the thinking of all Educationists in the country is the unanimity with which they have expressed the importance of Agriculture as a subject in the curricula of schools in the country. In the Madras State, more and more schools have been coming up with agriculture as a subject of study in the High school. The Government of Madras have been planning that every school should have Agriculture as a subject with a moderate sized farm attached to it. It is therefore a matter of great satisfaction that whatever controversies may be raging around the system of Secondary education, the necessity for agriculture in secondary education has been all the time in recent years, the most non-controvertial of matters.

It is a happy augury that this secondary education particularly with agriculture as an important subject has been tied up with a three year diploma course in Rural Universities, such as are coming into existence in Perianaickenpalayam, in Coimbatore and Gandhigram in Madurai. Situated as the institutions are in perfectly rural surroundings, the student materials coming up for such training are bound to be from rural agricultural communities and these diploma holders from rural agricultural institutions, would in my opinion fill up a gap in the country's agricultural personnel.

Another pattern of Agricultural Education which has come into prominence in the Annamalai University, which is again a University situated in rural surroundings is the introduction of Agriculture as a Science optional subject like, Botany, Chemistry or Zoology. In the Intermediate and B. Sc degree courses, such courses have become extremely popular and while the graduates of the Annamalai University who take up Agriculture as a major optional Science cannot be exactly equated with the professional degree holders viz. B. Sc, Ag. from the Agricultural College, Coimbatore these courses are however suitable for giving an intensive and practical

training in Agriculture and a highly useful agricultural bias to the Science Graduates. Those from the Annamalai University have proved highly useful in teaching of Agriculture in High Schools and for all departments, such as, the Revenue, the Co-operative, National Extension service and Community Projects etc. In addition, with Chemistry or Botany or Zoology, as a major subject these Graduates would also be useful in certain sections of Agricultural Research.

From all the above, it is clear that the patterns of thought regarding Agricultural Education have been undergoing a change and agriculture has come to occupy a pre-eminent place in all stages of education from the school to the University. It might truly be stated that the different patterns supplement rather than compete with each other. It is my personal opinion that the more agriculture gets into different curricula at different stages of boys and girls education, better and better would it be for the prosperity of Agriculture in the country as a whole. Let us therefore foster Agriculture as a subject of study in whatever form in every school, College and University keeping however the basic ideas of Agricultural Education sound and in tune with the needs of the country.

Besides the general patterns of agricultural Education for the last eight or ten years, a lot of thinking has been going on in the country regarding the remodelling of the professional Agricultural degree course. The Government Agricultural leaders and Agricultural educationists seem to think that the practical aspects of Agriculture should receive an even greater emphasis than it does at present. The Agricultural College at Coimbatore has introduced a 6 months-practical Farm training as one of the requirements for the completion of the degree. The formation of the Indian Council of Agricultural Education by the Central Government is indicative of the Government's concern in maintaining high standards of training in Agricultural Colleges in India. Under its auspices it is possible for the heads of Agricultural Institutions to come together and to evolve improved patterns of Agricultural training. A note of caution has however to be sounded at this juncture. While much hard work is expected of an Agricultural Graduate and more and more is being added to his curricula and while the professional agricultural degree course is one of the toughest courses among all professional degree course still the agricultural Graduate is among the lowest paid in the country. This is a matter which requires consideration of all the highest authorities of the Government and from the highest in the Agricultural field.

While what has been said above concerns Agricultural education at the under-Graduate level, some of the recent introductions of Post Graduate courses in Agriculture and its branches are praiseworthy. The Agricultural College and Research Institute has been running a Post Graduate diploma course in Horticulture for nearly 8 years. The Annamalai University has followed it up with a two year Post Graduate degree course leading to M. Sc. in Horticulture. Other Agricultural Colleges in India have already established such courses in other subjects or are on the point of introducing such courses. The Indian Agricultural Research Institute at New Delhi, has for a long time been a Mecca for post graduate courses in Agriculture and allied fields. To meet the needs of the greater agricultural development in the country and to increase production and export of all agricultural raw materials and industrial products depending on Agriculture, more research is needed and hence a large number of Research personnel are needed, and therefore the modern trend of agricultural education at Post Graduate level should be accelerated at a satisfactory pace.

**Agricultural Research:** One of the most modern and recent trends which are noteworthy in Agricultural Research is the fact that the research worker thinks more and more of the needs of the farmers and the lines of work are more and more in tune with the conditions in the country. While we have no doubt the highest words of praise for the British personnel who were pioneers in the early days of modern Agricultural Research in the country, they could not however be blamed if they had not the adequate background of Agricultural conditions in tropical countries like India. As a result of this, some of the research projects and the lines of Agricultural development were not exactly an improvement for the country's needs. As important examples can be mentioned the agricultural implements advocated by the British for a long time in the country and the projects for breeding of cows with foreign bulls which were unsuitable for the country. Today our Agricultural Scientists understand that their lines of research have to be entirely tuned with the conditions of the country and the economic conditions of the farmer. At the same time they have not lost sight of the fact that we should catch up in the modern lines of Agricultural Research, which have broadly proved useful in advanced countries. The modern use of chemicals of all kinds in the shape of fertilisers, plant hormones, insecticides, fungicides etc. is receiving every attention from our Scientists. Our young men in the Agricultural Research

laboratories are just waiting when they could do something even with atomic energy. The establishment of the first atomic reactor for the whole of Asia, recently in Trombay, provides a happy augury for keeping up the most modern trends in Agricultural Research.

**Agricultural Extension:** On Agricultural Extension nothing better could be said about some of the things I have had on my mind than what Dr. M. S. Randhawa has said in a recent article on Extension Training Programmes published as a selected article by the latest issue of the Madras Agricultural Journal. It is a good thing that the word 'Propaganda' which used to explain in the past the activities of the District Agricultural Staff, has in recent years been replaced by the word 'Extension'. Somehow or other this word 'Propaganda' began to connote, particularly during the last World War, something different from what the word really meant.

Today one of the modern trends of thought in the country with regard to spreading better knowledge of Agriculture is not merely to tackle the farmer but the family as a whole. It is being more and more realised that in Indian Farming it is not the farmer alone that comes into the picture, but it is a farmer's family as a whole which forms a farming unit. Therefore in recent years in Extension work, the addition of home economics in Extension has been coming in more and more into the plans of the Extension work sponsored by the Government. It is also being realised that one of the best means of spreading better agriculture is to train Village leaders who became centres of the spread of improved practices in Agriculture.

Again one of the most laudable lines of work in Agricultural Extension in recent years has been not to treat agriculture as a sole subject for improvement in rural areas, but with Agriculture as a nucleus to develop all round rural welfare by providing better communications, better sanitation more subsidiary industries, more schools, better nutrition, better medical help through all the community Projects and National Extension Service so that the farmer and his family grow as better economic units, on the basis of which alone agriculture can be improved and production raised.

From all these, it is evident, that while there may be some defects in all our plans, and in the modern trends in agricultural education research and extension, we are proceeding on sound lines as far as agriculture is concerned in our independent India.

---