

Rural Denmark and Its Lessons.

S. D. JOSHI, B.Sc. Agri. (Lond.), B.Sc., M.S.E.A.C.,

Research Assistant to the Plant Pathologist, United Provinces.

DENMARK is the best living example of how a predominantly agricultural country can be highly prosperous, and of how, with combined efforts, a nation can adjust its farming to altered circumstances within a short period. It is this small country which has to-day become the field laboratory of the student of agriculture and rural and social economics, from every part of the world.

Denmark has a total area of 16,608 square miles, which is less than one-sixth of the area of the United Provinces. Three-fourths of this is agricultural land. It has been an agricultural country from the earliest times. Until the middle of the 19th century it chiefly produced grain, the surplus of which was exported to Germany and other continental countries, and was the main source of income for the farmer. Towards the second half of the last century the Danes found that grain production had become unprofitable and that farming land without sufficient live-stock had depleted the soil fertility. They quickly realized the direction of change. There was Great Britain, separated only by a narrow stretch of sea, with its large demand for butter, bacon and eggs, and a market in Germany for similar produce as well as surplus cattle and horses. Attention was, therefore, turned to dairying as the primary industry, supplementing it with bacon and egg production. In this way her home production is calculated to have increased by about 85 per cent. from 1880 to 1917.

The population, of which the vast majority is engaged in agriculture, is considered to be the most prosperous farming community in Europe and probably in the world. The point that was first impressed on me by all authorities, was the even distribution of wealth in the country. No one is too rich in Denmark and none too poor. A typical farming community, they show unbounded hospitality to strangers, notwithstanding their highly commercialized system of agriculture. They are ever so glad to tell anyone what they have achieved and how, and, in fact, there is not the least amount of secrecy and hesitation in their ways.

They are very industrious and highly cultured people living a high standard of life in an unassuming manner. Owing to the absence of big industrial towns, the people have acquired an extensive love for the soil. Their social life is in complete harmony with the natural environments. Every house has a small garden attached to it, which is always kept up very nicely by the farmer and his family, and not only enhances the beauty of it, but also helps in the economy of the home. The people have a very wholesome recreation in physical exercises, in singing folksongs and patriotic songs in periodical markets, and feast days amusements. The village schools and churches form the centres for organization of meetings, lectures, extension courses, etc.

Farming has come to be regarded as one of the noblest professions. Two essentials for a strong country life have been fulfilled. Returns commensurate with the money and labour invested are obtained from the land, and the daily life of the farm has been made socially attractive and wholesome.

Agriculture has been put on a sound basis and farming is not a drudgery. It is practised more with the brains than with sweating manual labour. I came across a teacher, a young graduate of the Royal Agricultural and Veterinary College at Copenhagen, in one of the agricultural schools, who used to make a little addition to his earnings by working on a neighbouring farm, most of the summer, when he had only part-time lecturing work in the school.

Practically every man is brought up in agricultural atmosphere. I was told that even from the very few so-called industrial towns many boys are sent out by their parents to spend their summer vacations with the farmers in the country.

I have seen statues erected in the open country, depicting the conquest of the land with the plough and a pair of working animals. There are agricultural-history museums situated not in the towns but in the countryside. One of these museums which I was able to visit at Lyngby is a remarkable national collection. The exhibits consist of almost everything connected with agriculture, systematically arranged in the respective order of development. The development of various branches is very instructively explained by beautiful charts and pictures hung on the walls of a big two-storied hall. Old types of farm houses and buildings, water mills, wind mills, etc., have been bodily removed from different parts of the country and placed as exhibits on the spacious grounds included in the museum. Some of those century old houses and conveyances bore a striking resemblance to some of our present day farm houses and *palkees*. Attractive charts showing the organization of holdings could not escape attention. Displayed in the pottery house windows in Copenhagen, one can hardly fail to notice very beautiful China wares with coloured pictures of Danish creameries and certain other phases of farming, which are not infrequently found decorating the parlour of the farmer. All these things but point to the place a truly agricultural country has found for its farming.

The question occurs: how have the Danes achieved all this success? They are a small nation with a homogeneous population which, of course, made their task comparatively easy. The geographical position also offered a very favourable opportunity. The most important factors in the development, however, are the organization of rural and technical education, a satisfactory distribution of land and the application of scientific methods in the production and marketing of the produce.

Co-operation is the watch-word and is very closely interwoven into all the activities of Danish farming, and, indeed, has contributed very largely to the emancipation of the peasantry. That was thought to be the only way for the success and prosperity of the poor peasants and was fully taken advantage of. In the course of a talk, Mr. Herald Faber, the authority on Danish Agricultural co-operation, strongly emphasized on the point that an improvement, to be real, should come from the peasant farmers themselves.

Education is the basis of all improvement. Many hold that even co-operation could not have succeeded in Denmark without universal intelligence and disappearance of illiteracy. Elementary education has long been made compulsory from 7 up to the age of 14. Elementary schools teach

the fundamental subjects, such as reading, writing, grammar, arithmetic, history, geography, singing, gymnastics, etc., but they early inculcate in the boys the love of soil tilling as a life-calling. They have steadily developed into a high state of efficiency, employing well trained teachers who are contented with their lot and very often serve a long time in the same community. They hold a high rank in society and have many chances of becoming community organizers. After the age of 14 those of the boys who intend to take up an agricultural career—a large percentage—go out to learn practical farm work. Ordinarily in most of the elementary schools arrangements are made for evening continuation classes which enable the boys to attend them while working on farms in the day time. Instruction is given in the usual subjects including Danish language. These classes are attended up to the age of 18. Then comes the unique type of school called the Folks' High School, described by some as farmlife school. These schools are characteristic of the Danish system. They began solely by private enterprise with the object of imparting culture to the peasants, and became so popular owing to the desire for education among the masses that about 100 of these schools existing to-day can hardly provide accommodation for an ever-increasing number of applicants. Their aim is to make broad-minded patriotic citizens and prepare the foundation for prospective technical education. The whole success depends upon mutual confidence and sympathy among the teachers and the students. They live in very close association and the work is based upon lectures and discussions rather than text-books. The ability of the teacher to inspire and instruct is, therefore, an important factor.

Kold, who was one of the pioneers of the movement of high schools, always taught the people to despise outward show and value the greatness of the soul. He said that because a man cleans the cattle stalls and milks, it does not mean that his soul cannot be great.

With the small-holding ownership that has been established, the Danes realize that to work successfully through co-operative efforts it is essential to have an enlightened peasantry. Here comes in the influence of the high school in making the people realize how best the interests of the individual and the nation are served by mutual confidence.

It must be remembered that all these high schools are situated in the country, and residence in the school is compulsory. Most of the Folks' High Schools are not co-educational. They have two separate courses of instruction, a 5-month summer course for men and a winter course for women. Besides the general subjects the women are taught dressmaking, embroidery, etc. Considerable attention is given to the physical training of all. The young people, generally of from 18—30 years of age, who comes to these schools from all classes of the country population and even in some cases from the towns, live with the Head Master and his family. There are no examinations at the end of the course and no certificates or diplomas granted. Yet there is an increasing demand for these schools. The Danes have achieved a great success by their system of education in imparting high culture to their people without giving them a contempt for work with hands. They have ennobled manual work in the estimation of the people and at the same time increased their ability to do the work.

When the boys have had practical training on farms for at least three years and thereafter have, in the majority of cases, obtained a general training in one of the Folks' High Schools, they are ready to enter an agricultural school. With the exception of two, all the agricultural and dairy schools offer only a theoretical training in all the branches of the subject, variously arranged to suit the requirements of different districts.

The courses are held in winter usually for 5—7 months and intensive lecturing and discussions give a thorough instruction in scientific farming. These courses are mostly attended by men students only.

An important aspect of the education in these schools is the summer courses in household economics arranged for girls. The Danes believe that women who are destined to become the helpmates of scientific farmers must themselves understand how to manage the farm household economically and scientifically. Thus the subjects taught include cookery, needlework, painting, dressmaking, household hygiene, etc., all that are important for a housewife.

I have a very pleasant recollection of one such summer school at Haslev, where, by the kindness of the Director's wife, who was also a teacher in the school, I was able to see the work going on in different classes, such as the preparation of various meat and vegetable dishes, fruit preserves and syrups, household washing, ironing, embroidering, knitting, dressmaking and ordinary and lacquer painting. It is needless to mention that music and singing form an important part of instruction in all kinds of schools. There was a fine demonstration flower, fruit and vegetable garden surrounding the school buildings.

In late years three small-holders' schools have been catering for the needs of small peasants by combining general cultural education with technical instruction. They emphasize on branches of particular interest to the small-holders and also offer short courses in various subjects.

At the present time there are about 33 of these agricultural, dairy, horticultural and small-holders' schools, each full to its capacity. Besides, nearly 26 of the Folks' High Schools have agricultural subjects included in their courses. About 2,000 pupils have been attending these schools annually during recent years. Except in dairying, practically none of the schools hold any final examinations or award diplomas or certificates in agriculture, the students usually returning to their farms on completion of their training. Here again it is noteworthy that all the schools are located in the open country and form centres of rural social activities.

From the agricultural schools some of the clever students go to the highest agricultural institution in Denmark, the Royal Agricultural and Veterinary College at Copenhagen. It is one of the best of its kind in the world. It has extensive buildings, demonstration fields, laboratories, clinics and a library containing over 72,000 volumes. The courses of instruction in the college are agriculture, veterinary, horticulture, forestry, land surveying and dairying and dairy farming. The college arranges for extension courses and post-graduate work in specialized subjects. Attached to the college are an agricultural research laboratory and a serum laboratory for the manufacture of vaccines. The number of students attending the college for the agricultural course has averaged 150 for the past 5 years. The majority of the students passing out find an opening in State Service or become advisers, while a small proportion return to the land.

A distinctive feature of the Danish agricultural development lies in the direction of the distribution of land. The holdings in scattered strips have early been reorganized and parcelled out into suitable units. The constant need for more intensity of culture and a special desire for social equality and prosperity have continuously striven for the establishment of small holdings throughout the country.

In 1919, only about one-fifth of the agricultural land belonged to large estates, one-fourth to small holdings, and more than one-half comprised of middle-sized peasant farms. Year by year systematic efforts are being made to break up large estates and increase the number of small holdings. Hard

working young men are enabled with the help of mortgage loans to buy and settle on these holdings. That 92 per cent. of the farmers are owners of the land they cultivate is sufficiently indicative of the healthy farming conditions in that country.

↳ A small-holder may be the owner of anything from 1—25 acres of land. A good many, not possessing sufficient land, work as part-time labourers, but successful attempts have been and continue to be made to supplement their land to make it up to at least 15 acres, which is considered just sufficient as an independent family holding.

Milk production is the primary aim of every farmer. Breeds of cows have been evolved which give large quantities of rich milk. The introduction of suitable fodder crops insures a regular supply of milk throughout the year, which is regularly delivered to the nearby co-operative creamery to be made into butter, and brings him cash at regular intervals. On the by-products of butter making he raises pigs and poultry which are similarly sold to the neighbouring co-operative bacon factory and egg export association.

There are over 1,335 creameries working in Denmark to-day. Very efficient power machinery is used in all these creameries. It was an agreeable surprise to hear from a responsible officer of the Danish Agricultural Society that Denmark is not only meeting its own requirements of all the above-mentioned dairy equipment, from her home manufactures, but has also an appreciable export. Thus the country has not been slow to restore a proper balance between its agriculture and industries.

The enlightened Danish small-scale farmer is able to do his work with efficient implements and machinery. In not a few farms electricity is used for driving farm machinery, and is supplied by the co-operative associations at a cheap price. With no water power for generation of electricity efforts are being made to still further cheapen the supply by bringing the water power current from Sweden.

Thousands of small-holders, as also the large owners, are thus producing their commodities at the lowest cost of production, likewise marketing them in the most profitable way.

With what intelligence the land is farmed will be apparent from the fact that an ordinary small-holder could, while showing me round his farm, easily explain to me the scientific principles underlying the fertilizing of his plots and how with the assistance of the agricultural society he had fought out a disease that he had noticed reducing the yields of his barley and oats. On another occasion I met a farmer who had failed to establish lucerne in a particular plot and was trying in conjunction with an adviser to get it established there. In this connection it would not be out of place to mention that lucerne is being widely introduced into the rotations in order to decrease the country's dependence on imported feeding stuffs.

Research work in every branch of agricultural industry is being untiringly carried on. Not satisfied with the progress made by patient work in their own country, the Danes do not fail to send their scholars for special studies abroad, wherever there are better facilities. The educational work by means of numerous shows and demonstrations has not been a little responsible for the rapid progress.

Science has come to the aid of the farmer by placing at his disposal valuable information regarding the best methods of utilizing the soil, and the farmer has been enabled to rise to the occasion. He is constantly in touch with every activity concerning his industry. One of the mottos of Danish agriculture is "Keep close to the Farmer."—*The Journal of the Central Bureau for Animal Husbandry & Dairying in India*, Vol. I, Part 2,