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NEHRU EMPHASIZES NEED FOR FARMERS' ORGANIZATION

Inaugurating a Rally of Young Farmers at Bangalore on February 4 Prime Minister Nehru said that a stable agricultural economy depended on two things. First of all, there must be more and more production and secondly there should be proper organization of agriculturists.

About 2,000 young farmers from all the districts of Mysore State participated in the Rally, organized by the Young Farmers' Association of Mysore, which was marked by an impressive march past and a picturesque parade of trucks depicting improved agricultural methods and the need for greater production.

The President of the Bharat Krishak Samaj and the Young Farmers' Association of India, Dr. P. S. Deshmukh, welcoming the Prime Minister presented a Farmers' Flag to him as a souvenir.

The Prime Minister in his address said that the basis of all advance in India was a prosperous, productive agriculture. He asked the people not to make the mistake of thinking that ceilings on land, agricultural cooperatives or such other things thought of, were something associated with a particular gospel. These land reforms and cooperatives were a modern approach to agricultural problems all over the world.

He stated that during the last ten years, the country had made a good deal of progress in the agricultural field, but "this progress is not as much as we want it to be".

THE FIFTH CONVENTION

The Bharat Krishak Samaj has decided to hold the Fifth National Convention of Farmers from May 1 to 5, 1959 at Mysore.

It is expected that the Convention this year will attract a very large number of agriculturists from all parts of India.

Shri Nehru said that efforts should be directed towards doubling the per acre yield. He had no doubt that this could be accomplished easily, if the farmers were well organized. He expressed his appreciation of the good work which was being done by the Young Farmers' Association of Mysore and said, "This inspires me, because this is the kind of thing we want to have all over India".

Proceeding, the Prime Minister referred to the cooperative scheme and said that the principle of cooperation was essential in the modern world.

Whether in Government, industry or agriculture they had to develop this more and more to ensure continued progress. "I hope there will come a day when there will be a kind of cooperative world, which will put an end to national rivalries and national conflicts", he added.

Explaining the scheme of service cooperatives, the Prime Minister said that village cooperatives could join to form a union and unions could get together to form a federation. A step further, although not proposed now, was that ultimately there should be cooperative joint farming. Therefore under the service cooperatives, the individual right of share would be there and farming would be a joint common concern.

He said that India had small holdings all over and the farmers had

not the necessary resources to adopt scientific techniques. A small agriculturist by himself could not do much and therefore they were drawn inevitably to cooperation.

Shri Nehru declared, "We are determined to go ahead with production in land, we are determined to make agriculture a success and we are determined to raise the level of living of hundreds and millions of farmers and peasants in India".

President's Appeal To Farmers

In a Republic Day broadcast to the nation the President, Dr. Rajendra Prasad, called for the doubling of the present production so that we might become "free from the ever present ghost of hunger".

The President said, "With our great traditions of agriculture going back to centuries and the capacity for work and shrewdness and intelligence of our people it is really a matter of shame and humiliation that we should have to look to other countries for food and spend hundreds of crores of rupees on importing it".

He said that agriculturists should realize that in increasing production and enhancing the yield per acre of land they were not only doing a great national service but also improving their own standard and thus combining and indentifying national interest with their own.

Once this realization comes it should not be difficult by intensive cultivation and the use of improved methods to raise the yield two fold and solve the difficult problem of food, the President added.

JATTI OPENS EXHIBITION

Shri B. P. Jatti, Chief Minister of Mysore, opened an Exhibition organized by the Mysore Young Farmers' Association on the occasion of the Young Farmers' Rally at Bangalore on the premises of the Mysore Farmers' Forum at Cenotaph Road.

Addressing the gathering he appealed to farmers to make the best use of cooperative organizations.

Shri K. F. Patil, Minister for Agriculture of Mysore and Shri R. Narasimiah, Vice-President of Mysore Young Farmers Association welcomed the chief guests and explained the purpose of holding the exhibition.

Shri K. F. Patil, Minister for Agriculture of Mysore in a brief speech said that the Young Farmers' Association started two years back in the State had 1,200 clubs with 30,000 boys and girls as members.

Dr. P. S. Deshmukh on this occasion expressed the hope that State farmers would bring greater glory to the country by increasing production with modern methods of agriculture.

MYSORE KRISHAK SAMAJ

The Executive Committee of Mysore Krishak Samaj met on January 17, under the presidentship of Shri K. F. Patil Minister for Agriculture and President of the State Krishak Samaj.

The meeting proposed that the Fifth National Convention of Farmers should be held at Mysore. In this connection an *ad hoc* committee was formed with Shri T. R. Neswi, M. P., as Chairman to finalize the details regarding the Convention.

The Committee suggested that the Convention might be held sometime in the first week of May, 1959.

ANDHRA KRISHAK SAMAJ

The Andhra Pradesh Krishak Samaj has formed a 24 member Executive Committee. The following are the office bearers of the Committee. President Shri P. Thimma Reddy, Minister for Agriculture. Vice-Presidents: Shri H. Sitarama Reddy, Shri V. V. Krishnamraju Bahadur and Shri J. Raghotham Reddy. General Secretary and Treasurer: Shri B. Mohan Reddy. Secretary (Rayalseema Region): Shri N. P. Chengalraya

Naidu. Secretary (Costal Andhra Region): Shri K. Krishna Reddy and Secretary (Telengana Region): Shri P. Hanumantha Rao.

WEST BENGAL FARMERS' CONVENTION

"We will have to change our old agriculture system otherwise we will lag behind other countries which have changed their agricultural system with the help of scientific methods", said Dr. P. S. Deshmukh, President of the Bharat Krishak Samaj addressing the West Bengal Farmers' Convention at Sriniketan on February 9.

Over 300 delegates from all the districts of West Bengal were present on the occasion. Among others present were Shri K. C. Chowdhury, Vice-Chancellor, Vishwa Bharati, Shri Dhiranand Roy, Director, Shantiniketan, Dr. R. Ahmed, West Bengal's Minister for Agriculture and other high officials of the State Government.

Addressing the meeting Dr. Deshmukh congratulated the Paschim Bang Krishak Samaj for infusing a new spirit in the agriculturists.

Dr. Deshmukh expressed satisfaction that educated youngmen of the country were becoming increasingly interested in agriculture and thanked the Vishwa Bharati authorities for undertaking to give training to young farmers at Sriniketan.

Earlier, Shri Chowdhury said that the farmers from different parts of West Bengal have acknowledged the contribution of Sriniketan to village reconstruction by holding the Convention there.

Shri Chowdhury said that branches of Krishak Samaj should be established in different villages.

Among others who addressed the Convention were Dr. R. Ahmed; Shri Debnath Dass, Secretary of the Paschim Bang Krishak Samaj, Shri L. N. Hazra, Shri Dhirendranath Dutta, Shri Janendra Nath Ghose and Shri Nishapasi Majhi.

An exhibition was also held on the occasion of the Convention at Sriniketan.

MADHYA PRADESH KRISHAK SAMAJ

About 1,500 delegates from all over the State are expected to participate in the Second Annual Convention of the Madhya Pradesh Krishak

Samaj, scheduled to begin on February 28, at Rasalpara, about 10 miles from Indore.

Shri H. V. Pataskar, Governor of Madhya Pradesh, will inaugurate the Convention and Dr. K. N. Katju, State Chief Minister, will preside.

ASSAM KRISHAK SAMAJ

Shri A. Y. Ahmed has joined the Assam Krishak Samaj as Organizing Secretary with headquarters at Shillong. The State Krishak Samaj is planning to organize branches of the Samaj at different levels in the State.

RAJASTHAN KRISHAK SAMAJ

A Training Camp was organized by the Rajasthan Krishak Samaj at Tehsil Krishak Samaj of Arain in Ajmer district.

The camp was inaugurated by Shri Ram Niwas Mirdha, Speaker, Rajasthan Legislative Assembly. Lectures were delivered at the Training Camp by agricultural experts and progressive farmers on agriculture, animal husbandry and cooperation. A large number of farmers and rural workers attended the Camp.

GURGAON KRISHAK SAMAJ

The District Krishak Samaj, Gurgaon (Punjab) will hold a seminar on March 1, 1959. The Seminar will be presided over by Dr. P. S. Deshmukh, President of the Bharat Krishak Samaj and a large number of agriculturists, agricultural officers and rural workers are expected to participate in it.

NAGAPATTINAM KRISHAK SAMAJ

The Taluk Krishak Samaj of Nagapattinam in Tanjore District (Madras) celebrated their annual function in Kivalur village on January 16. A large number of farmers participated in the meeting held on this occasion.

The Samaj has been doing excellent extension work in cooperation with the Community Development and Agriculture Department. Members of the Samaj are striving to bring about an increase in the rice output in that area.

KRISHAK SAMAJ REPRESENTED ON FIRST AGRICULTURAL UNIVERSITY BOARD

The Government of Uttar Pradesh has enacted the U. P. Agricultural University Act, 1958 to establish an Agricultural University for the development of agriculture and for the benefit of the rural people of the State.

The Act provides for including a representative of the State Krishak Samaj in the Board of Management of the University.

The University will make provisions for education in agriculture, rural industry and business and other allied subjects. It will carry out research work and will undertake field and extension programmes.

PADAM SHRI FOR DR. UPPAL

Dr. B. N. Uppal, Agricultural Commissioner, Government of India, received the *Padm Shri* award from the President of India on the Republic Day.

Dr. Uppal, a life member of the Bharat Krishak Samaj, is a reputed plant pathologist and had done outstanding work on the development of wilt-resistant cotton strains. Dr. Uppal's research in plant disease control, culminating in the sulphur treatment of *jowar* seed for the control of smut, has saved Deccan farmers several million rupees.

THANA KRISHAK SAMAJ SPONSORS FARMER'S SPECIAL

Four hundred farmers will visit Delhi by a Kisan Special Train on March 12 on *Bharat Darshan Yatra* which has been organized under the auspices of the Thana District Krishak Samaj (Bombay). They are expected to meet the President, Dr. Rajendra Prasad, the Prime Minister, Shri Jawaharlal Nehru and Dr. P. S. Deshmukh, President of the Bharat Krishak Samaj.

The farmers left Bombay by a Special Train on February 12 and on their round the country tour will visit Andhra, Madras, Mysore, Orissa, Bihar, Uttar Pradesh, Punjab and Madhya Pradesh. They will reach back at Bombay on March 18.

Indian Farm News

MINISTERS RECOMMEND FAIR PRICE FOR FARM PRODUCE

The Conference of State Ministers of Agriculture, which met at New Delhi on February 6 and 7, agreed to launch a countrywide drive for higher production during the forthcoming *kharif* season and accepted the Agricultural Administration Committee's Report. No decision was, however, taken on the proposal to set up an all-India agriculture service.

The Ministers also called for a fair price to be assured to the agriculturist. In a resolution they stated that one of the important measures to increase production and maintain it at a high level was to provide a fair price to the producer, "after taking into account all aspects of the problem". They called upon the Government of India to take adequate steps in this regard.

Another resolution pressed for larger supplies of chemical fertilizers. The conference hoped that the Central Government would make every effort to meet the growing need for fertilizers by direct purchase from abroad or by barter or through other arrangements until such time as fertilizers are produced within the country in adequate quantities.

SCIENTISTS ROLE IN INCREASING FOOD PRODUCTION

"The Story of mankind was the story of hungry creatures in search of food," said Dr. E. C. Stakman, plant pathologist and Professor at Minnesota University, U.S.A. at the Indian Science Congress meeting held in New Delhi.

Dr. Stakman, speaking on the "Obligations and Limitations of Science", said that in an urbanized society there was a tendency to forget how food was produced. People did not realize that machines did not produce food and that land and water were still the basic factors in food

production. No doubt the introduction of scientific methods of cultivation had doubled and trebled food yields in the West, but even today two-thirds of the world population remained hungry.

Meanwhile, Dr. Stakman said that the world was becoming more populous and its population might double in the next 40 years.

He said that in the foreseeable future food production would depend on the land available. Production could, however, be increased by genetic improvement of crop plants, better breeding and better protection against bad weather and pests and diseases. This would require the services of many very competent scientists.

Dr. Stakman called for united efforts by all social scientists and the provision of facilities for them to conduct experiments to increase food production.

ARECANUT COMMITTEE MEETING

The 10th annual meeting of the Indian Central Arecanut Committee was held at Calicut.

Shri M. V. Krishnappa, Union Deputy Minister for Agriculture addressed the meeting and laid stress on the technical guidance to be given to the arecanut growers to help them obtain yields commensurate with their efforts. He commended the working of various co-operative marketing societies which were providing arecanut growers with agricultural implements, spraying equipments, fungicides, manures and fertilizers.

Dr. M. S. Randhawa, Vice-President of the Indian Council of Agricultural Research said that the main items on which "we are relying for increased production of arecanuts are application of fertilizers, green manuring, irrigation and plant protection".

He said that the Indian Central Arecanut Committee was the youngest

of the eight committees and was established in 1949. Under the expansion programme of the Committee was proposed the establishment of five regional research stations, one each in North Kerala, South Kerala, Mysore, Assam and West Bengal, the areas where arecanut was a major crop.

Dr. B. P. Pal, Director of the Indian Agricultural Research Institute, pointed out the need for coordination and co-operation between research workers stating that modern science had progressed so much and had become so specialized that it was impossible to achieve further progress without team work.

AGRICULTURAL STATISTICS CONFERENCE

Inaugurating the 12th annual meeting of the All India Agricultural Statistics Conference at Gwalior on January 28, Shri H.V. Pataskar, Governor of Madhya Pradesh, said that a large number of books on agriculture and statistics should be published in Indian languages.

Earlier, Dr. K. N. Katju, Chief Minister of Madhya Pradesh praised the work done by the Conference in the last eleven years and urged that efforts should be made so that statistical information might reach the farmer also.

He said that it was necessary to collect statistics regarding the size and number of agricultural holdings of the State, the various ways in which land was utilized, the condition on which farmers took and cultivated land, the number of cattle, and the condition of service of agricultural labour etc.

He said that full knowledge about land, labour and capital was necessary.

RICE RESEARCH WORKERS' CONFERENCE

A Rice Research Workers' Conference and a meeting of Rice Committee of the Indian Council of Agricultural Research was held at Cuttack from February 16 to 21.

Shri R. B. Deshpande, Assistant Secretary, and Shri L. N. Hazra (West Bengal) represented the Bharat Krishak Samaj at the meeting.

INDIAN DELEGATION TO WHEAT CONFERENCE

The Indian delegation to the second session of the International Wheat Conference, which is being held at Geneva will be led by Shri B. B. Ghosh, Secretary, Union Ministry of Food.

The Conference agenda includes discussion on the maximum and minimum prices of wheat to be fixed under the new International Wheat Agreement, the duration of the Agreement, the quotas of the exporting and importing countries and the manner in which the international wheat interests of the different countries should be safeguarded.

RADIO FORUMS

The extension of the Radio Rural Forums on the model of the experiment conducted by the Poona

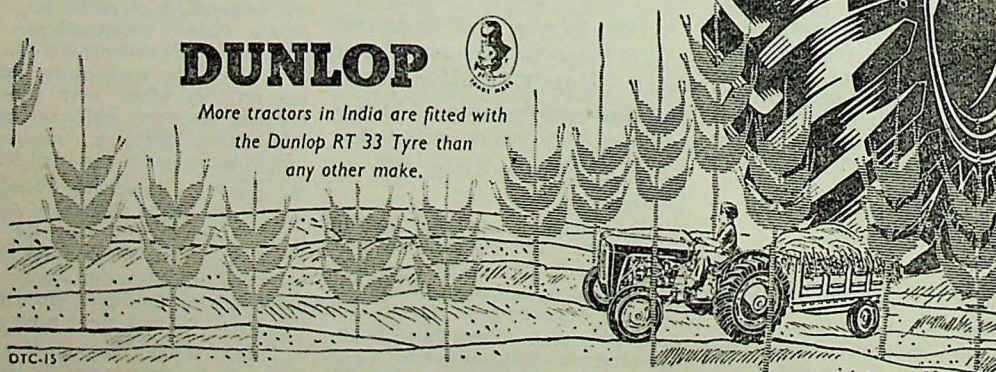
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OTC-15

station of the All India Radio in 1956 in every State with at least one village in every Community Development Block in the country, was agreed upon at a Conference of State Directors of Information held in New Delhi.

The forums will spread knowledge about application of improved methods of agriculture and animal husbandry and bring about an increase in agricultural production in the areas in which they will be organized.

NATIONAL AWARDS FOR INCREASED OUTPUT

The Government of India have announced a scheme for the award of community prizes at district and State levels as an incentive for increasing production.

District or States where the total production of food grains exceeds by 15 per cent or more the average of the last three years will qualify for the community award. Each district which is entitled to an award, will receive Rs. 10,000 and each State Rs. 50,000.

In addition, the highest producing district in a State will receive a *Rajya Kalash* and State achieving the highest percentage increase in production in the country the *All-India Rashtriya Kalash*-silver urns filled with typical grain of that particular area.

NO COMPULSION IN COOPERATIVE FARMING

Addressing the I.A.S. probationers at the Indian Administrative Service Training School at Delhi, Shri Shrimannarayan, Member of the Planning Commission, said that service cooperatives should be organized in villages as a prelude to the formation of cooperative farming societies. He said, "There can be no question of despotism or compulsion in cooperative joint farming. It must necessarily be voluntary and there can be no intention on any body's part to impose joint farming on the peasantry".

REFRESHER COURSE IN AGRICULTURAL ENGINEERING

The Government of India has decided to organize a refresher course in agricultural engineering in May 1959.

Designed to improve the standard of education in agricultural and veterinary colleges, the training will be

given at the Agricultural Institute, Allahabad and will include theoretical and practical lessons in the latest developments in agricultural engineering such as farm machinery and power, dairy and irrigation machines, farm buildings, sample surveys and soil conservation.

ALL INDIA CATTLE AND POULTRY SHOW

The All-India Cattle and Poultry Show will be held at Bangalore from February 22 to March 1, 1959.

An All-India Cattle and Poultry Breeders' Conference will also be held on that occasion.

Sponsored by the All-India Cattle Show Committee, the Show will display improved breeds of cattle, buffaloes, horses, sheep, goats and poultry. An agricultural exhibition in which some of the foreign countries are participating will form part of the Show.

U.P. PLANNING FOR KHARIF CAMPAIGN

A scheme has been drawn up in Uttar Pradesh to train more than 10 lakh *Gram Sahayak* in advanced methods of agriculture and to utilize their services in the coming Kharif Campaign.

The State Government proposes to concentrate more on the Japanese method of paddy cultivation, growing of green manure crops and adoption of line sowing in respect of maize, *jowar* and *bajra* crops.

NEED FOR PROMOTING WOOL INDUSTRY

Inaugurating a Sheep and Wool Exhibition at Jaipur on February 3, Shri Nathu Ram Mirdha, Minister for Agriculture, Rajasthan, stressed the need for promoting the consumption of indigenous wool and increasing the production of quality wool.

Referring to the sheep and wool development activities in Rajasthan, Shri Mirdha said that the State Government would shortly establish a Sheep and Wool Development Board.

Shri Mirdha advocated co-operative marketing for wool and wool-products and urged the wool users, wool traders and sheep farmers to co-operate fully in sheep breeding and wool development activities.

In Parliament

STATE TRADING

Shri A. P. Jain, Union Minister for Food & Agriculture reiterated in the Rajya Sabha on February 12 that the Government was determined to implement its decision to introduce State Trading in Food grains despite the opposition of the trade.

Wheat Imports

Replying to a question the Food Minister said that from April 1 to December 31, 1958, 19.24 lakh tons of wheat was imported. He said that a total of 2,293.4 thousand tons was distributed to the States.

Sugar Production

In a written answer to a question on sugar production in Uttar Pradesh the Food Minister said that during the 1958-59 season, upto January 31, 1959 the production was 4.40 lakh tons as against 4.50 lakh tons during the corresponding period last season. This year the recovery had been lower by about 0.2 per cent. This smaller production was mostly due to lower recovery. There had hardly been any effect of agitation for the increase in the cane price on sugar production so far, Shri Jain added.

COOPERATION ESSENTIAL FOR ECONOMIC PROGRESS

Shri G. B. Pant, Home Minister commending service cooperatives and joint farming, said in Rajya Sabha on February 17, that individual efforts by themselves would not be fruitful. He added: "We do not want to have recourse to coercive and totalitarian methods. Then what other alternative is there except the line of encouraging cooperation. So, it should be clearly understood that if we want to avoid compulsion and coercion, we have to promote cooperation. Even for the cultivation of small patches of land, it is necessary that agriculturists in course of time should be able to get together in order to have the benefits of joint effort. But cooperation is a matter of voluntary agreement. It has the merit not only of helping economic progress but also of raising the stature of and confidence of the co-operator in himself."

Import & Export

SUGAR

In June 1958 India exported 50 thousand tons of sugar, which will earn about Rs. 2,40,00,000 in foreign exchange. This statement was made by Shri M. Lal at the 9th meeting of the Sugar Industry Development Council held at New Delhi recently.

Shri Lal said that it has been decided to export one lakh ton of sugar in 1958-59.

LEMONGRASS OIL EARNS FOREIGN EXCHANGE

India contributes 80 per cent to the world's supply of lemongrass oil and earns Rs. 1.5 crores annually in foreign exchange.

Lemongrass (*sinobopogon flexuosus*) so called because of the strong lemon odour its oil gives, is indigenous to India and its cultivation is concentrated in Kerala.

The oil is considered valuable for its main constituent, citral used in the manufacture of synthetic vitamin "A". Almost 97 per cent of the Indian production is exported.

CARDAMOM

In the first ten months of 1958, India earned Rs. 2,87,00,000 in foreign exchange by exporting Cardamom. India exports it to Saudi Arab, Sweden, U.S.S.R. and many other countries.

The Government has accepted two schemes of Mysore and Kerala for increasing the production of cardamom and improving its variety.

GINGER

India earned Rs. 47,80,00,000 in foreign exchange by exporting ginger in the first ten months of 1958. Ginger is exported to Aden, Saudi Arab, Britain, America and several other countries.

The Government has approved the schemes of Assam, Uttar Pradesh and Kerala regarding improvement of the quality of ginger. Efforts are being made to extract ginger juice and research work is being carried out for extending the use of ginger in other ways.

Research

ATOMIC ENERGY IN AGRICULTURE

In about two months a Gamma Field with a 200 curies Cobalt 60 source will be established at the Indian Agricultural Research Institute, New Delhi for breeding improved crops which will not only be high yielding but also be resistant to rust and other diseases.

The work of application of radio-isotopes in agriculture has been going in the Indian Agricultural Research Institute for about three years now. At one time it was thought that radio-isotopes might prove most useful in stimulating plant growth. However, on the basis of experiments carried out in different parts of the world, including those at the Indian Agricultural Research Institute, it has now been well established that radio-isotopes offer no such possibilities.

The present day use of radioactive substances in agriculture stems mainly from the fact that the characteristic property of radioactivity makes it possible to detect them and trace their movement in plant tissues and in the soil. The use of radioactive tracers in fertilizers enables detailed study of the action of soil fertility and crop nutrition on plant growth.

Secondly, radiations which they emit can bring about heritable changes in plants. The plant breeders have in them a relatively inexpensive and readily available tool for enlarging the variations available to them.

Lastly, the sterilizing effects of radioactive materials on biological tissues offer great promise for pest control. By rendering males of the pest community sterile by exposing them to Gamma rays, the whole breed can ultimately be wiped out because the females, who mate with sterilized males, will not produce fertile eggs.

Plant Breeding

The modern methods of plant breeding have one thing in common—they all involve selection of suitable variations at one stage or the other. The ability of a plant breeder to achieve a desired objective, say, incorporation of resistance to rust in a variety of wheat, by selection, depends upon the availability of variability in the plant population with reference to this character. In nature, such variability arises from the gene-mutation which occurs

spontaneously but at very infrequent intervals. Genes are minute bodies in the cells of plants and animals which are the physical vehicles of hereditary characteristics. Fundamental changes in such characteristics are possible only if the genes themselves undergo change. The rate of spontaneously occurring mutations can be speeded up by the use of radio-isotopes which emit radiations that are capable of inducing changing in the genes which determine the characteristics of living organisms.

What radiation does is just to accelerate the process of gene-mutation, leading to the creation of a large amount of variability. This process of man-made evolution is particularly helpful in plants like wheat where intensive breeding work has been done during the past 50 years and the scope for further improvement in yield and other characters by using the naturally occurring variability now seems to be very limited.

The work on mutation with the use of radio-isotopes has already made considerable headway at the Indian Agricultural Research Institute. Several interesting and useful mutations have been induced in wheat, cotton etc. Early flowering has been induced in plants of the wheat variety N.P. 809 which is also resistant to black, brown and yellow rusts. While it would have taken several years to effect this change by conventional breeding methods, the change has been achieved in one generation through irradiation.

In some varieties of cotton, pollen sterility has been induced by irradiation and this may facilitate economic production of hybrid seeds which are known to give an increased yield over the normal varieties. In tomato and a number of ornamental plants, mutations have been artificially induced which make the fruits or the flowers considerably more attractive in their appearance.

The artificial induction of mutations has thus opened up enormous possibilities in the field of plant breeding.

A big step in fundamental research regarding gene-mutations by the use of radio-isotopes has now been taken in the form of establishing a Gamma-Field at the Institute. Although a number of radio-isotopes have been successfully used for the production of mutations, experience has shown that perhaps the best possibilities in this direction are offered by Cobalt 60 which has relatively long life and emits Gamma rays which are highly energetic and penetrating. It is also inexpensive and more efficient.

HEREDITARY FAMILIAL CATTLE DISEASES

The Uttar Pradesh Government's new scheme for scientific investigation, control and eradication of hereditary familial diseases in livestock will be put into operation very shortly. The scheme involves a total expenditure of about one lakh of rupees.

It is planned to produce animals that will be healthy and highly productive and would not be prone to disease. Hereditary form of sterility in Scandinavian countries has been controlled and incidence of this type of disease has now become practically negligible.

In India the pathologists and veterinary clinicians are busy in controlling diseases like rinderpest, foot and mouth and anthrax etc. and so no definite attempt has so far been made in this direction. With the rapid development of artificial insemination etc. it is felt that time has now come when a vigorous beginning may be made in this field too. The study of hereditary diseases in animals is a new branch of veterinary medicine.

Agricultural Digest

NEW USES FOR AGRICULTURAL PRODUCTS

In the following survey of some of the research activities and developments in the United States in finding new market outlets for agricultural products, a distinction has been made between perishable commodities, which may give rise to seasonal surpluses and stable commodities which can result in annual surpluses.

Fruit & Vegetables

An important development, which has considerably widened the market for this group of commodities, has been the production of frozen concentrated juices. The frozen concentrated juices, which have been marketed and have had marked effects in increasing demand and stabilizing prices, include the following: orange, lemon, tomato, lime, tangerine, grapefruit, grape and apple.

A further development is the effort to convert fruit and vegetable juices into powders. Orange, lemon, grapefruit, apple, prune, grape and tomato powders of excellent palatability, which are quickly and easily reconstituted by the addition of water, can now be made.

Considerable progress has also been made in research to develop new methods of preserving fruits and vegetables in solid form. Two of these are dehydro-freezing and dehydro-canning. In these processes the fruit or vegetable is partially dried and then preserved by either freezing or canning. In both processes the products can be reconstituted quickly by immersion in water.

Eggs

Research has been going on to find additional methods of preserving eggs and thereby offsetting seasonal surpluses. Preservation of eggs by freezing is widely practised, and successful results have been achieved in producing a glucose-free egg powder which can be safely stored for more than six months at 100° F.

Milk

Development of better methods of converting whole milk into a stable, palatable form has been receiving a good deal of attention in

research. On the basis of the experience gained in developing frozen fruit concentrates and fruit powders, advances are being made in developing stable and palatable forms of milk, both dried and concentrated.

Grains

One development in this field is aimed at increasing the demand for wheat by attacking the problem of bakery products becoming stale. If bakery goods remain fresh for 3 to 5 days, it is believed that consumption would greatly increase. Two approaches have been adopted. The first is the freezing of bread and other bakery products. The second approach concerns the use of bread softeners to prevent staling. Certain fat derivatives and proteins may be helpful in reducing the rate at which bakery goods become stale.

In seeking industrial or non-food uses valuable information has been obtained by the Northern Utilization Research Laboratory on the production of alcohol from grains, particularly for use as a motor fuel. Intensive investigation on the conversion of carbohydrates to hydrocarbons has shown all sorts of plants and plant wastes (e.g. wood, leaves, potatoes, grass and sugarcane) to be suitable raw materials for the production of synthetic crude fuels.

—“Development of New & Extended Uses for Agricultural Products”, published in the *FATIS Review* (Vol. 5; No. 5.)

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World News

INTERNATIONAL HORTICULTURAL EXHIBITION

Just one month after the scheduled conclusion of the World Agriculture Fair, which is to be held from December 11, 1959, to February 14, 1960 at New Delhi (India) another World Fair—the International Horticultural Exhibition—will be held at Rotterdam (Netherlands). This Exhibition is expected to cover an area of 125 acres and will last till October 1960.

The Exhibition will hold flower, fruit, vegetable and seed show and will display the methods employed in the processing of horticultural products.

COMMONWEALTH SUGAR DEAL

The Commonwealth Sugar Deal has been extended to 1966. The negotiated price for 1959 under the agreement has been established at the equivalent of \$112.75 per short ton about a three dollar increase over 1958.

The bigger sugar producer signatories to the Agreement are the West Indies and British Guiana which provide about 40 per cent of the 1.7 million short tons that come under the Agreement terms.

LAND REFORM IN SYRIA

A new land reform law has been enacted in Syria.

The maximum holding of a Syrian farmer has now been fixed at 80 hectares of irrigated land or 300 hectares of non-irrigated land. In addition, a farmer can transfer upto 10 hectares of irrigated land or 40 hectares of non-irrigated land to his wife or children. (One hectare is equal to 2.47 acres.)

Compensation will be paid to farmers, currently owning more land than the maximum allowed, equal to ten times the average rental value over three years. This will be paid in government bonds bearing one and a half per cent interest and redeemable in 40 yearly instalments.

The expropriated land will be distributed among small farmers with

priority in the case of the peasants now working on the land involved. Such a peasant will get a minimum of 8 hectares of irrigated land or 30 hectares of non-irrigated land. The peasants will pay the price of the land plus 10 per cent for administrative costs, over 40 years at one and one-half per cent interest.

The new Syrian land reform law provides for the establishment of farm cooperative societies to assist the new owners.

BRITISH SMALL FARMER TO BENEFIT

The British White Paper outlining a scheme to help small farmers is a major item in proposed British agricultural legislation this year. The scheme would provide efficient small

and the prices in August 1958.

The farm work done by members of the farmers' families would be taken into account in fixing the price. This work would be valued according to farm wages unless these deviate substantially from the general level of wage earners' incomes, in which case the latter is used as a basis for valuation.

GREECE REDUCING WHEAT PRODUCTION

The Government of Greece is encouraging farmers to switch from growing wheat to growing something else.

The measures to reduce wheat production, taken by the Government, include a drop in government

JOIN ALL INDIA FARMERS' COUNCIL Enrol Life Members

The term of the first All India Farmers' Council expired on December 31, 1958.

The new Council is being constituted now.

The AIFC has given special representation to life members of the Bharat Krishak Samaj. Every life member who enrolls an additional 20 life members will be entitled to become a member of the AIFC for the duration of the next term. He will be invited to attend all meetings of the Council for which he will be given the privilege of travelling allowance as permissible by the Samaj.

This special concession is available only upto March 31, 1959.

farmers with governmental financial assistance.

Basically, the scheme is aimed at helping those small farmers who need more money to invest in their operation and who show that they can achieve economic independence within a few years. The scheme covers for the most part crop and grass farms between 20 and 100 acres as well as farms that are able to pass a certain "size of farm business" test, as measured by what is called the "standard man day".

FINLAND RATIONALIZES FARM PRICE STRUCTURE

Farmers in Finland would soon be getting more money for their products. Under a new law, the prices of farm products would be linked to agricultural costs and would be determined according to a special calculation based on average quantities for the crop years 1954-55 to 1956-57

purchases of home-grown wheat under price supports and loans to encourage farmers to shift to other crops. The other crops are mainly hay and forage crops.

The Greek Government says that large government purchases of wheat at high guaranteed prices are jeopardizing the country's economy.

NEW FERTILIZER

The Leningrad Agrophysical Institute (U.S.S.R.) has evolved a new fertilizer called—polyacrylamide. This fertilizer possess the quality of restoring the structure of soil by glueing it into small hard lumps. The process takes only a few hours, whereas in natural conditions it takes years.

The new fertilizer can help in improving different kind of soils, from heavy loam to strongly salinated ones.