

## President's Appeal

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### Notice

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THE Bharat Krishak Samaj views with grave concern the present situation arising out of the Pakistan's aggression on India. A large section of the farmers of India have always borne the brunt of fighting on various fronts from time immemorial. It is no exaggeration to say that many farmers' families have either fought on the battle-front or ploughed the land, that is to say, they either wielded the sword or used the plough. Even now the bulk of the fighting forces comes from villages and belongs largely to the farming community, consisting of various castes and communities from the highest to the lowest.

Under the present crisis the Bharat Krishak Samaj pledges every support and co-operation to the Government. It also appeals to the farmers all over the country to give an unstinted support to bring about greater national solidarity and be prepared to make any sacrifice. Those who are not needed on the battle-front should exert their utmost to produce more from their fields in order to strengthen the "Food front".

The Samaj further appeals to the progressive and financially well off farmers, and more particularly to the members of the Samaj, to help their farmer brethren with their know-how, bullocks, agricultural machinery and implements, improved seeds and anything else that they may need in their efforts to produce more from their lands. We have no doubt that every farmer would respond to the recent appeal of the Prime Minister and contribute his utmost in various fields for the sake of the protection, honour and freedom of the Motherland.

A. M. Thomas

President





# Programme for National Defence

1. (a) To give agricultural production top-most priority.  
(b) To make every effort to increase agricultural production by adopting improved agricultural practices and by making the fullest use of the available facilities such as irrigation, fertilizers and manures, plant protection service, credit, etc.  
(c) To fix targets of production and work hard with determination to achieve them.  
(d) To give advice and all possible help to neighbouring farmers and encourage them to put their heart and soul in their profession in order to contribute their utmost to the agricultural production.
2. (a) To give full and active co-operation to Governmental agencies and voluntary organizations engaged in increasing food production and in other Defence efforts.  
(b) To fully cooperate with the Bharat Sevak Samaj in carrying out its "Seven Point Programme" and particularly in stepping up agricultural production.
3. (a) To take steps to effect utmost economy and to eliminate waste altogether in the use and consumption of food grains and other daily necessities.  
(b) To cut down to the minimum the expenditure on religious or social festivals, functions and ceremonies, including marriages.  
(c) To bring to light all cases of hoarding and blackmarketing.
4. (a) To persuade every able bodied young man to join the armed forces.  
(b) To donate in cash and kind freely to the Defence Fund.  
(c) To make every effort to save as much money as possible and to invest it in "Small Savings" or "Defence Savings Schemes".
5. (a) To refrain from spreading panic rumours which are palpably untrue and exaggerated.  
(b) To act everywhere in a disciplined manner and see that no indiscipline is encouraged.

There are only a few general suggestions. Additions and alterations in the programme may be made to suit local conditions. It is earnestly hoped, that the members of the Samaj will make every effort to implement the programme.

R. B. Deshpande

Secretary,  
Bharat Krishak Samaj

## Farmers Solve their Problems Themselves

### Commendable Work of the Farmers' Forum, Mudhol (Mysore State)

There is vast area under the command of the Ghataprabha Left Bank Canal. Much of the area has not yet been brought under irrigation due to various reasons. One of the main reasons is that the field channels have not been constructed.

This was the problem. The responsibility of the construction of field channels rests with the P.W.D. of the State Government. The responsibility of obtaining consent of the farmers and recovery of such costs lies with the Revenue Department. The N.E.S. is responsible for providing seeds, manures, fertilizers, pesticides etc. to the farmers for increasing agricultural production.

All these agencies could not co-ordinate and make a combined approach to solve the problem.

The Farmers' Forum, Mudhol took the opportunity and invited all the Heads of the three concerned Departments of Irrigation, Revenue and N.E.S. and chalked out a pro-

gramme of holding one demonstration on the fields on construction of field channels. The Forum requested the Irrigation Department to arrange to give line-out of the field channels and supplied them with flags to show the alignments of the field channels. The Forum requested the Revenue Department to intimate the concerned farmers through whose fields the field channels passed. The B.D.O. was requested to help in collecting farmers on the spot to witness the demonstration and solve the difficulties on the spot. With all the pre-arrangements, one demonstration was held on Distributory No. 3, where the heads and staff of the Irrigation, Revenue and N.E.S. Departments were present with a large number of farmers. Farmers' Forum took charge of the meeting and conducted the proceedings successfully.

The alignment of the field channel was shown with red flags, and the concerned cultivators were shown round. The alignment was slightly changed according to the desire of

the owners of the fields to allow water to the fields below. Some initially unwilling farmers were convinced about the common benefits and they then readily agreed to construct the field channels.

Thus the main problem of construction of field channels was solved on the spot, with the cooperation of all the three Departments of Irrigation, Revenue, N.E.S. and the farmers on one common platform for the common benefit of the irrigators.

*The Mudhol Farmers' Forum in Mysore State, under its enthusiastic Hony. Secretary Shri B. S. Bhide, has been doing outstanding work on the farms. It is doing pioneering work in other fields also, e.g., it is the first organization in the country to start Crop Clubs for jowar and bajra (Krishak Samachar, August 1955). The above note clearly shows what co-ordination can achieve. The example of the Mudhol Farmers' Forum should be emulated by the State Samajs at different levels throughout the country (Editor).*



# Report of The Sixth Group of U.S. Farm Leaders on Their Visit to India

January 10 to March 10, 1965

(Continued from July 1965 issue)

The Nestle factory there was the next industrial operation toured by our group. This plant, constructed by the Swiss Company, is engaged in the manufacture of Nestle's coffee and various baby foods that are in good demand and certainly needed in India. Dried milk and tea are other products manufactured at this plant. Raw buffalo milk is collected from the villages from a 100 mile radius to make the milk products here. Everything is handled under strict sanitary conditions at this plant.

The local Frances Newton Hospital was the next institution that we visited. This hospital is known for the good medical work done here and the very human approach employed by the staff to meet their problems.

After one last meeting with the local farmers who asked many questions which we tried to answer regarding U. S. type farming and how it might be used by them in the Punjab, we returned to our respective hosts' homes where we packed for the return trip to Delhi on February 16, 1965.

Our travels and visits in this state indicated to me that this area of India is a very heavy food and fibre producer with very aggressive and progressive operators trying to solve their problems while producing heavily at the same time. The farmers in this area seemed to be more mechanized in their operations and seemed to be very interested in further improvements in that field. Their major problems seemed to be water logging of the soil due to poor irrigation drainage and a lack of sufficient fertilizer or the funds to purchase it with if it were available. Sanitation is also a problem in this area.

## Maharashtra

A stop overnight was made in Bombay. The group was entertained at tea by the Farmers' Forum. One couple were guests on a large diversified joint family farm. On this farm rice was raised and processed ready

for consumption, peanuts were grown and oil extracted, cotton was grown and ginned and baled, sugar cane was grown and sent to the local cooperative sugar factory. There were in addition to these projects, fruits and coconuts, honey, silk and cotton.

## Uttar Pradesh

February 25 we arrived by train in Dehradun. From here we went to Mussouree, a resort in the Himalayan mountains, and stayed the first night. We found Mussouree mostly deserted as it was off season for the resorts. There was some snow on the ground. The group enjoyed the beauty and grandeur of the mountains and the relaxation. Here in Mussouree we observed that the hill people were quite different from other people of India. Tibetan refugees were seen here too.

We checked in at the "White House" in Dehradun on February 26. After meeting some of the Farmers' Forum people at tea we visited a small 12 acre fruit farm, the majority of which had been jungle seven years ago. The group visited a 20 acre farm of sugarcane, rice and fruit trees. We were served lunch at their home which was on the farm. The group enjoyed the informal home atmosphere. The operator of this farm had a side line of medical herb formula inherited from his grandfather.

A soil conservation research farm was visited. The technical director of this farm had studied in the U. S. A. and was putting into practice some of the things he had learned in this country.

We visited the Cheshire Home for Incurables where about 38 patients were being cared for.

Two chicken farms were visited. One was a house roof project and the other a project to train military veterans. The group was entertained

at tea by the Farmers' Forum at the Club house. Many local members were present.

At the Indian National Research Station on Forestry we saw modern forestry practices' uses of wood and wood products and a fine museum on wood products and plant breeding.

The silk factory at Dehradun was visited by the group and found most interesting. There were handlooms and machine looms. We were amazed at the great numbers of strands of silk used in weaving. We also saw the silk worm cocoons being unwound. In their shop the women of the group enjoyed looking at and buying some of the silk yardage.

We saw the training centre in Dehradun for Cottage Industries Workers. Most of them were in their teens.

Large tea gardens were visited where we saw the tea being sorted and prepared for market. This was black tea as it was the end of the crop and not a good enough quality to be used for their usual green tea which is mostly exported. This, to our understanding, was the only place in India where tea was processed into green tea.

Our last activity in Uttar Pradesh was a tea given by a Farmers' Forum member at his farm home. A large number of farmers and their wives and young people were present to enjoy the tea and visit with us.

On Sunday, February 28, the group went by train to Agra where Agra Fort and the Taj Mahal were admired.

## Cotton

The main cotton operation that we observed was in an area near Coimbatore. All the cotton fields were well cared for but plants did not seem to have the amount of fruit that they should have had and the cotton fruit appeared to be quite small.



## Rice

We saw rice grown in all the areas we visited in India. In general, the rice crops were of good quality and pretty uniform stands. All the rice is planted in a starting bed and transplanted in the field when a month old by hand labour. At maturity the rice is harvested by hand, hauled to the threshing yard by bullock cart or carried by hand. The threshing is done by flail and bullock. Many farmers had rice hullers to remove the rice hulls before it is marketed. In general, all operations were quite primitive by American standards.

## Wheat

Wheat, the staff of life, is grown in most areas of India. The production per acre is comparable to the U. S. but the variations are so great. The crop is dependent on rainfall where irrigation is not available. They are very pleased with the quality of the soft, light coloured wheat they produce but are critical of our wheat shipped here under P. L. 480 because of dark colour. Rust infection limits their production and excellent facilities are set up for plant breeding for its elimination. Ford and Rockefeller Foundations, A. I. D., are assisting in this work. The experience of many years of research in the U. S. A. is in existence. We saw one field of wheat under irrigation and heavy fertilization that was expected to produce 80 bushels per acre. The wheat in the Punjab showed great promise of high production. We were amazed to find threshers put aside and the old time unsanitary methods being used. All agree the limiting factor to be lack of water for maximum production. Without water, fertilizers are useless for production and an added expense. The use of soil testing equipment seems very limited.

**The 19th Meeting of the All India Farmers' Council will be held on 12th, 13th and 14th November 1965 at Lucknow, U.P.**

## Cooperatives

Co-operatives in India are similar in some respects to cooperatives in the U. S. A. India has co-operative banks and cooperative marketing and purchasing associations. The purpose of these cooperatives is to enable farmers to obtain financial assistance for farm operations at a reasonable cost and to assist farmers in the buying of farm supplies and the selling of their farm production at fair prices,

The co-operative movement has not been too successful in India but interest rates to farmers have dropped where cooperative banks operate.

In order to serve the farmers better, the cooperatives will need more latitude in serving them in all phases of their operations.

March 1 and 2 were spent in Delhi. During this time there was an evaluation by the Farmers' Forum, followed by a farewell dinner given by the Farmers' Forum. This courtesy was greatly appreciated by the FWA group.

There was an evaluation by the A. I. D. followed by a much appreciated lunch given by the Chief Agriculturist of the U. S. A. I. D. at his home.

We met with a representative of the Ford Foundation in India and discussed the group's stay in India.

Our group does see hope for agriculture in India. We can see many of the problems that the Indian people have now that were our sin the past.

As our group looks back at our trip to India it is with grateful hearts. We wish to say "thank you" to Farmers and World Affairs, the Farmers' Forum of India and to our hosts and hostesses and many friends in India.

And a very special "thank you" to Mrs. Usha Deshpande, our guide and companion during our stay.

## Diet Atlas of India

The 'Diet Atlas of India' prepared by the Indian Council of Medical Research reveals that on an average the city dweller has 25 per cent of his total expenditure on food-grains, 9 per cent on milk and milk products and 26 per cent on other items. Against this a rural dweller provides 41 per cent for foodgrains, 8 per cent for milk and milk products and only 19 per cent for other items. In Andhra Pradesh, Gujarat and Uttar Pradesh people consume around 160 grams of millet on an average while in Madhya Pradesh its average consumption is only 20 grams. Kerala, West Bengal and Himachal Pradesh consume no millets at all. Consumption of pulses is highest in Uttar Pradesh followed by Madhya Pradesh, Gujarat, West Bengal and Bihar (between 60 and 100 grams). In Kerala the consumption of pulses is less than 20 grams. In the case of milk and milk products Punjab tops the list with a daily consumption of 220 grams followed by Gujarat and Maharashtra with 140 and 100 grams respectively. Kerala and Bihar are at the far end with less than 20 grams. In the case of sugar and jaggery too, Punjab tops the list; on an average 85 grams are consumed per day per adult. West Bengal and Maharashtra come next with about 40 grams each. Bihar, Kerala and Himachal Pradesh have the minimum consumption level. The survey shows that more than one half of the population of the country is non-vegetarian, while in Gujarat, Punjab and Rajasthan non-vegetarians constitute less than 40 per cent of the population. The calorie intake per adult in Punjab, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh and West Bengal is about 3,000 while in other States it ranges from 2,000 to 2,500. Kerala has the lowest intake with only about 1,800 calories.

These data are based on surveys made in different parts of the country.

( *Agricultural Situation in India, April, 1965.* )



## Further Report of the Team of the Indian Farm Leaders Visiting U.S.A.

Indian Farm Leaders, who are now visiting U.S.A., have sent a second report dated August 13, 1965, on the Team's visit to the U.S.A.

The visit of the Team has been uniformly comfortable and enjoyable, besides being very informative and stimulating. The Team, as a whole, has left lasting impressions on American folks in areas it visited.

The farmers in U.S.A. have no difficulty, whatsoever, either in obtaining their supplies or in the marketing of their produce. Their Organizations and extension services make every possible effort to obtain the best and the latest results of researches from the Universities and other sources; these also help the farmer to obtain the best possible price for his produce. The Cooperatives have a big hand in giving fillip to the agricultural production in the country.

### Columbia (Missouri State)

Here the visit included Facility Farm Supply Cooperative, Feed Petroleum and Equipment, Concordia Creamery, Livestock Marketing Society at Marshal Inter-section. This added to their information on the subject of cooperation and its practical operation. The farmers in U.S.A. have specialised in particular fields; for instance, the producer of eggs neither hatches them nor breeds birds. Similarly, a poultry breeder would not undertake marketing of eggs.

At Columbia the Team had the opportunity to hear Dr. Roy Reed, Director of M. F. A., Dr. D. N. Harrington and others on various aspects of cooperation.

### Okklahoma State

The Team visited Ponca City and was warmly welcomed at several functions held in there honour. They visited Enid Union Equity Cooperative, Continental Oil Company, Felican Sisters School, Bert Blumer Dairy, Ranch Drive Cooperative, Union School and Steichen Farm.

The cooperative institutions gave very stimulating information on how the American farmers, on joining their hands together, have done away with the middleman altogether. By

marketing their produce through the cooperatives they have bettered their bargaining powers. Besides, grading of the agricultural produce, which helps both the purchaser and the seller, is done to a large extent. These marketing facilities are not limited to farm produce only. They extend to livestock marketing as well. Moreover, these cooperatives provided storage facilities also and created a sound basis for the farmer members to obtain loans from Government and other agencies.

### California State

The Team then proceeded to California State and visited Los Angeles. Here during their short stay they visited the famous Disneyland, which is a real wonder land.

From Los Angels, the Team proceeded to Bakersfield. Here they received a real royal welcome at the airport. They had an air tour of the Kern County in small private planes flown at very low altitude. Their stay in Bakersfield included visits to several ranches, state projects, co-operative institutions; they also witnessed agricultural flying demonstrations.

The visit to Bakersfield proved to be the real eye opener. It greatly impressed the members of the Team that American farmers have a knack of doing things which others found difficult. They believe that every problem has a solution and they have worked with this spirit and determination and achieved their objectives. They have converted a desert with an average annual rainfall of 5 inches into a land of plenty growing cotton, grapes, sugar beets, groundnut and paddy. They have reclaimed huge expanses of alkaline lands and the process continues. It is a fine example of what a determined people can do with sprinkler irrigation. As elsewhere in the country, agriculture is highly mechanized and works under rigid Government controls on different crops.

As in our country the farmers in the U.S.A. do not get adequate remuneration for their capital investments and labour put in. For example, a one lb. wheat bread, which sold for

14.7 cents in 1947-49 now sells for 27 cents. The consumer now pays almost the double price he used to pay in 1947-49 but the farmers continue to get out of these 27 cents only 2.7 cents for the raw materials as they used to get in 1947-49. The processors and handlers command the market. The wages of industrial worker are four times as high as those of the agricultural worker, and they enjoy all kinds of amenities. Similarly, the share of cotton grower in the price of the fabrics, that of grapes grower in the price of wine and other agricultural producers is not just and proper. But the farmers in U.S.A. are highly sensitive and they have formed themselves into various strong organisations and they have been agitating on these issues very effectively. They are backed by lot of research in every aspect of the problems confronting them. These experiments and lessons are worth adopting in our Indian farming practices for stepping up food production in the country.

[The Team concluded their visit of U.S.A. on September 9, 1965. Some members of the Team are now back in India.]

### Condolence message on the demise of our late President, Dr. Panjabrao Deshmukh

The Gujarat State Second Co-operative Conference, held at Bardoli, on 22nd and 23rd May, 1965, under the auspices of the Gujarat State Co-operative Union, passed the following resolution on the demise of late Dr. Padjabrao Deshmukh, late President of Bharat Krishak Samaj.

“This meeting of the Gujarat State Second Co-operative Conference deeply mourns the death of Dr. Panjabrao Deshmukh, who was a great leader of the Co-operative Movement in India and a leading patriot as well. The Conference conveys its appreciation of the services rendered by him to India and the Co-operative movement in the country and offers its heartfelt condolences to the family members of the beloved leader.”



# INVENTIONS PROMOTION BOARD

## OBJECTS & FUNCTIONS

The Inventions Promotion Board, as its name implies is an organisation formed by Government of India with the purpose of guiding, helping and inculcating the spirit of invention among Scientists, Engineers, Workers, Artisans and Technicians working in Government or Private undertakings.

It was realised by Government of India that in all the advanced countries of the world, most of the inventions, which brought about industrial revolution and changed the very face of their economic structure were from individual citizens, who were not necessarily connected with any Government Organisations and that while the inventors abroad were encouraged by their respective Governments, the Indian inventor was not so fortunate.

For this purpose, Shri Manubhai Shah, the then Minister of Industries, gave the necessary impetus by getting a Government of India resolution passed on 20-4-1959 for the formation of an Inventions Promotion Board, so that, the individual inventor, who plays a vital role in the development of industries, is given every encouragement and assistance.

The Board was accordingly formed in the year 1960 under the Ministry of Industry with a Governing Council of Eleven members and Shri M.S. Thacker, the then Director General, Council of Scientific and Industrial Research, as its President. The Board is now functioning with Dr. H.Zaheer, Director General of Council of Scientific and Industrial Research, as its president, Shri K. V. Venkatachalam, Joint Secretary, Ministry of Industry and supply, as its Vice-President and Shri N. Bhavanani, as its Executive Director.

The Principal functions of this Board are :—

(i) to encourage and inculcate the spirit of invention amongst independent workers, artisans and technicians;

(ii) to assist in guiding the country's inventing talent in the most fruitful channels;

(iii) to promote and implement such ideas, and inventions by suitable technical and financial assistance.

The nature of financial assistance which the Board would give for the foregoing objectives, would be of two kinds, namely :—

(i) Grants.

(ii) Prizes.

Grants would be made for giving financial assistance to the inventor for the development of an invention or an idea having potential promise of improvement in technology and may be in any of these forms :—

(i) an outright payment of a sum to meet the anticipated developmental expenditure.

(ii) a subsidy for the purpose to supplement his own resources, and/or

(iii) assistance in kind, such as technical services or experimental facilities, etc.

Developmental expenditure of the following types may be recognised for the purpose of such grants, namely :—

(i) expenditure for designing, drafting and preparing detailed drawings, etc.,

(ii) cost of raw materials, power, labour, etc.,

(iii) fees to laboratories or workshops for the fabrication or trial or experiments,

(iv) cost of patenting, and

(v) in exceptional cases (after careful scrutiny) subsistence or other personal expenditure to be incurred by the inventor in connection with his developmental work.

The quantum of such grants would have to be determined after

examining each case individually on the basis of the value of the invention or idea, and the needs of the inventor. In making grants, priority may be given to those who have been awarded a prize over those who have not received such a prize from the Board.

Prizes would be awarded bearing in mind the following principles :—

(i) Only inventions and ideas which have been put into practice or whose practical workability has been amply demonstrated by initial experimentation would be recognised, irrespective of whether the invention or idea has been patented or not, or whether it has been actually exploited in industry or not.

All applications for new inventions are thoroughly scrutinised by the Technical Officers of the Board and after examining the different aspects, referred to an All India Panel of Experts on the concerned subject. After receiving the opinion of the experts, these cases, are placed before the Advisory Committee which, after due consideration of the merits of each case, decides on the extent of financial assistance or prize award to be granted.

Private individuals, employees in Government undertakings, laboratories and Research Institutions avail the services of the Board for any assistance for the development and protection of their original ideas or inventions.

The Board, at present, has its office situated at 22, Pusa Road, New Delhi-5. Applications for financial assistance/prize awards on prescribed forms, obtainable from the Board's office, and enquiries related thereto may be sent at the above address.



## New Liquid Food as Substitute for Milk

Dr. H. B. Franklin, a chemist, has invented a new liquid food which is regarded as an excellent commercial substitute for milk.

Called "plant milk", it has a soyabean base and is made exclusively from vegetables and vegetable base. A company has been established to market the product. The product is not only of great benefit to vegetarians but has a great potential in countries with no dairy produce.

Plant milk is twice as strong as ordinary milk and could be kept up to a week in a cool place. It looks like cow's milk. The potential of plant milk is unlimited.

The delegates from 16 countries, including India, attending the 18th World Congress of the International Vegetarian Union at Swanwick, Derbyshire in England, were told of this new product. The Congress is to be held in a different country every two years. The next Congress is to be held in India in November, 1967.

(B. I. S. B. 1029)

## Checking Cannibalism in Poultry

Cannibalism in poultry is a bad sign and should be promptly checked as soon as it is noticed, otherwise a good many birds may be killed.

Toe-pecking, feather pecking and egg eating are some of the forms of cannibalism among poultry birds. The worst form is when birds start pecking at each other's vents and pulling out intestines for eating.

One simple method of preventing this vice is by de-tipping birds. A slanting cut is first made on both sides of the beak. The tip of the beak is then broken off, exposing the 'quick'. In the case of grown-up birds, 5 mm of the beak has to be de-tipped, while for day-old chicks, de-tipping one-third of the beak will do. The de-tipped birds can eat grain or mash but cannot peck at other birds.

Providing plenty of feed and water, keeping the birds cool, having red lights and painted windows, lett-

ing the birds go out of doors often, and keeping them busy also help in preventing the vice. The ring-leaders should be removed at the first signs of cannibalism.

(Farm News No. 24/65)

## Reducing Inter-Calving Period in Cows

Experiments carried out at the Indian Veterinary Research Institute, Izatnagar (Bareilly, U. P.) showed that by feeding half a gram of copper sulphate along with the normal ration (wheat straw and a concentrate mixture of wheat bran, barley and groundnut cake), the period between two calvings can be reduced considerably.

(Farm News No. 33/65)

## Urea for Farm Crops

Experiments were carried out by Madhya Pradesh State Department of Agriculture on the comparative effects of urea and ammonium sulphate on the important cereals of the State. It was found that in the case of wheat and paddy, urea was as good as ammonium sulphate but in the case of jowar and cotton urea gave better response than ammonium sulphate.

Urea has another advantage over ammonium sulphate. It can be sprayed directly on the leaves of the crop instead of being applied to soil. The farmers in the State are turning more and more to urea rather than ammonium sulphate for supplying nitrogen to their crops. Besides, urea is cheaper than the other fertilizer.

(Farm News No. 7/65)

## Loranthus on Fruit Trees

Loranthus is a flowering parasite and is commonly found attacking fruit trees like mango, guava, pomegranate, citrus, bel, custard fruit and sapota. It causes heavy losses to orchardists.

The parasite bears yellowish-red or deep orange flowers and rosy-red berries. Its seeds are carried from tree to tree by birds, squirrels and the wind. These seeds germinate on the branches of the tree and the parasite soon spreads over the entire tree.

Loranthus does not kill the trees outright but it reduces their bearing capacity.

The only effective control measure is to cut down and burn all effected branches of the tree as soon as the attack of the parasite is noticed and before it bears seeds. Only prompt and timely action against the parasite can help the farmer.

(Farm News No. 18/65)

## Control of Sugarcane Leaf Hopper—Fogging with Gamma B.H.C.

Experiments carried out at the Sugarcane Research Station, Shahajahanpur (U. P.) have shown that in the control of sugarcane leaf hoppers on a fully grown sugarcane crop fogging or smoking with the insecticide is more effective than spraying or dusting. The fogging should be done with a swing-fog machine.

About 840 grams of Gamma B. H. C. 20 per cent emulsifiable concentrate dissolved in 22 litres of kerosine are needed to fog a hectare. The cost comes to about Rs. 18/- per hectare.

(Farm News No. 19/65)

## New Storage Method for Seed Coconuts

Seed coconuts, when stored in gunny bags—whether layered or double—remain good only for three months. Then they start drying up and after six months, they do not germinate at all.

In experiments carried out at the Central Coconut Research Station, Kasargod (Kerala State), it was found that seed coconuts, when stored in alkathene-lined hessian bags, will germinate even after 11 or 12 months of storage.

The coconuts should be packed immediately after harvest and stored.

(Farm News No. 27/65)

## Endrin Spray Effective in Controlling Root Aphids on Ragi

Root aphids are very small and dull white insects. They appear in clusters on the roots, suck up the sap and slow down the growth of the plants. Such affected plants dry up and wilt prematurely if the pest is not controlled in time.

Root aphid can be controlled by spraying Endrin 0.02 per cent. The spray should be applied to the soil.



It should first be applied when the crop is three weeks old. Another spray may also have to be given after an interval of three weeks.

Regional Research Station, Koilpatti (Madras State) has found that ragi yields increase by as much as 988 kilos per hectare on controlling the pest.

(Farm News No. 34/65)

### Root Aphid—A New Cotton Pest

Root aphids are becoming more important as cotton pests in India. Previously they were rare but now they are proving dangerous to the cotton crop.

The symptoms of the attack of the pest on cotton crop are the yellowing, fading and slight curling of the leaves. As the attacks progresses the leaves dry up and fall. In such plants, all the side roots and rootlets are damaged.

Experiments carried out by the Department of Agriculture, Mysore State, show that cotton root aphids can be controlled by applying insecticides. Endrin 0.04 per cent, Malathion 0.1 per cent, Parathion 0.02 per cent, and Metasystox 0.2 per cent.

Each cotton plant should be treated with half a litre of the insecticidal solution by pouring it at the base of the plant on the soil.

(Farm News No. 31/65)

### Mulching of Apple Trees

The Government Hill Fruit Research Station, Almora (U. P.) has found that the mulching of apple trees gives more and better fruits and the best material for this purpose is oak leaves.

Mulching keeps moisture within the soil during the summer months and protects the tree from extreme cold in the winter months. It also controls weeds and improves the soil, drains and fertility.

The effects of mulching were not noticeable in the growth of young trees in the first five years at Station. But later on, the mulched trees grew vigorously and gave much higher yields and superior fruits than the un-mulched trees.

(Farm News No. 32/65)

### Vaccine for Tick Fever

Tick fever is a serious poultry disease. Many birds die of the disease specially during the summer months.

The Animal Husbandry Department of the Punjab Agricultural University, Ludhiana, has recently developed a vaccine which protects poultry birds from tick fever.

The vaccine will immunize the birds for at least one year. It does not have any harmful effects on the birds.

(Farm News No. 21/65)

## Delegation Leaves for G.D.R.

At the invitation of the Farmers Mutual Aid Association of the G.D.R., a delegation of six members of the Bharat Krishak Samaj left for G.D.R. on Friday, 17th September, 1965 for a stay of about 10 to 12 days in that country. During their stay in G.D.R. the group, besides visiting Leipzig Agricultural Exhibition of the G.D.R. in Erfurt, will also visit Cooperatives, Research Institutes etc. The members of the group are :

1. Shri K. Kamalannan, Madras
2. Smt. K. Jamuna Bai Kannan, Madras
3. Shri B. G. Bhagwan, Mysore
4. Shri Narayan Sadashiorao Watane, Maharashtra.
5. Shri Bhagwantrao Shivramji Patil, Maharashtra and
6. Shri Lade Sanyasi, Orissa

The group was given an orientation by the Cultural Adviser of the Trade Representative of G.D.R. in India, New Delhi and a farewell party by the Bharat Krishak Samaj before their departure. This is the third group visiting G.D.R. under the Exchange Programme. The members were selected by the Selection Committee of the Bharat Krishak Samaj and were interviewed by the Inter-departmental Selection Committee of the Ministry of Food & Agriculture.

## Krishak Samaj News

### Rohtak District (Punjab)

At the last meeting of the Executive Committee of the Rohtak District Krishak Samaj, held under the presidentship of Ch. Hatti Singh, the following resolutions were passed:

1. The Haryana Co-operative Sugar Mills, Rohtak, takes the sugarcane from the farmers within a radius of 10 miles. The mill authori-

ties have not provided facilities and incentives to the cane growers in this zone to win their confidence and cooperation for maximum production. No approach roads have been constructed. Spare magas for cultivation of more sugarcane are not being provided and no facilities for seed cane are provided.

2. There is a general complaint that irrigation wells are not provided with electricity in time. Sometimes it takes years to get the power connection for irrigation. This shakes the confidence of the farmers and retards the progress of Grow More Food Campaign. It is suggested that when there are more than five applications from a village for power connections, the same should be provided as speedily as possible, without any extra charges.

3. In order to put more life in the organization, village committees be appointed where there are 21 members on the Executive. Members are requested to organize such committees in their villages and enrol more members with at least 20 per village.

4. The meeting dislikes and resents any increase in land revenue or *abiania*. The farmers are already burdened with taxes which are above their paying capacity. They are not getting remunerative prices for their produce. The cost of production has increased considerably so also the cost of inputs. More taxes would have deterring effects on all their efforts for Grow More Campaign.

5. There are complaints of non-availability of fertilizers for sugarcane crop when it is most needed. Jowar seed was also not available at sowing time and the farmers had to purchase it from open market at Rs. 100/ per quintal. The Department of Agriculture is requested to ensure supplies of seeds and fertilizers for *rabi* season.

6. The distribution of cement is faulty. The farmers' legitimate claims for cement for their farms' use are ignored with the result the Grow More Food Campaign gets a setback. It is requested that first priority in the distribution of cement should be given to sinking of wells and no extra *chanda* (Bond or Red Cross) should be collected at the time of distribution of cement.