Tamil Nadu Precision Farming Project

6. Media and Publicity

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Tamil Nadu Precision Farming Project

A Model Farmers' Corporate

[illegible] Vadivel, Ph.D.

Tamil Nadu Precision Farming Project is a turnkey consultancy Project for Tamil Nadu Agricultural University, Coimbatore, and was the first of its kind among Indian Agricultural Universities. It was a State's mega demo in 400 ha to be implemented in farmers holdings with a business component of consultancy fee to University and a condition to enhance the productivity of crops by 40-50 percent. The scientists have accepted the challenging task of being in the field and taking the first step by themselves while the farmers and the extension workers were participating as trainees. Subsequently, for crops raised by the farmers for the next three years, the scientists have extended technical support. The project was awarded to TNAU on competitive bid basis and the highest quote was Rs.17.50 crores by an overseas firm while the lowest quote of the TNAU was Rs.7.20 crores of which Rs.43.20 Lakhs was made available as balance after completion of the project.

Processes matter

There were three partners, viz., TNAU, State Department of Horticulture and farmers and there was a tripartite agreement defining the responsibility of each. The District Administration shall identify the beneficiary farmers with the help of State Department of Horticulture. The TNAU, as the implementing agency, shall undertake the cultivation of crops. The State Department shall and farmers had to undergo hands-on training. The farmers within 20-30 km radius in the block have been brought under a cluster and each cluster was registered under Societies Act. The cluster served as the platform for all kinds of interactions, transactions, and functionally like a commodity group. Within TNAU, there was a Co-ordination Committee, Technical Committee, and separate Purchase Committee. About 20 scientists were physically in the field to cover 100 ha during the first year (2005-06), 200 ha during the second year (2006-07), and 100 ha during the third year (2007-08).

Technologies and Precision elements

The prime technologies adopted were remote sensing and GIS, chisel plough, Community shade net pro tray nursery, Crop geometry, Drip and Fertigation, IPM and INM. 'Precision Farming' means predominantly the variable rate of fertilizer application for each sub cubic centimeter of soil in

The New Indian Express

COIMBATORE, Monday, 25 August, 2008

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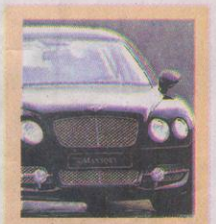

Page:4

FOR THOSE WHO ENJOY SPEED

Bentley claims that the speed will reach 100kmph in 4.5 seconds, and if you find a lengthy stretch of wide-open asphalt, you'll discover that it has a top speed of 322kmph

Ploughing a new furrow

PRECISION FARMING

Thanks to Tamil Nadu Agricultural University, Coimbatore, the benefits of precision farming are ploughing into the fields far and wide

Imagine a farmer earning more than Rs five lakh in about eleven months from a bounteous harvest of 170 tonnes of vegetables from an acre and 20 cents!

This is a normal scenario in Dharmapuri and Krishnagiri districts and almost all parts of Tamil Nadu. But to the Malayalee counterpart of the Tamil Nadu farmer, this presents a wonderous spectacle.

The question arises as to how this has come about? The answer lies in Precision Farming. It is a cent percent scientific agricultural method, under the aegis of Tamil Nadu Agricultural University (TNAU), Coimbatore.

Enchanted by the rich pickings, the farmers of Palakkad district in the neighbouring state of Kerala are eager to convert to this lucrative farming method. TNAU is providing the requisite assistance. The farmers of Dharmapuri and Krishnagiri are also quite enthusiastic in sharing their rewarding experiences with their fellow growers of Palakkad.

This novel agricultural practice has generated a fresh bloom of hope in the bosom of those in the eastern parts of Palakkad. Faced with severe water scarcity, like in certain parts of Tamil Nadu, precision farming has come as a boon to these dry areas.

Recently, 110 farmers of Perumatty and Pattenchery panchayats of Palakkad district have been chosen for adapting to Precision Farming. Only debt-ridden farmers have been selected initially. Experimental farming is done in 150 acres in the first stage.

The Kerala Government has already allocated Rs 71 lakh for this purpose. The states have an expertise-sharing programme involving agricultural officers and farmers, to facilitate this joint venture. "Now we are planning to cultivate only vegetables. If the yield is good, we will venture into other crops. Personally I think it is better for vegetable cultivation," says K Krishnankutty. This former MLA from Chittur is himself a green-fingered farmer.

BENEFITS

The main objective is to increase yield. An equally important goal is to minimise water consumption, a natural resource that is increasingly becoming a precious commodity. Precision Farming ensures high yield by using very little quantity of water and fertilisers compared to the conventional methods. Only water-soluble fertilisers are used. It is applied directly to the roots of the plants through drip irrigation. Precision Farming techniques also make weed and pest control easier, compared to traditional ways.

Conventional farming would yield ten tonnes of vegetables per acre, compared to 35 tonnes through Precision Farming from same acreage. Months ago Chinnaswami of Dharmapuri district created a record by producing 170 tonnes of brinjals from an extent of land mentioned in the beginning.

Exemplars like these from Tamil Nadu have infused renewed vigour into the sinews of farmers in Palakkad. Sugarcane, banana, ladies finger, tomato and horticultural crops have been grown successfully using this innovative technique. But the one important ingredient is strict monitoring. Any laxity on this front will spell disaster. It involves doing the right thing, in the right time, in the right way, in the right place. Hence farmers in Kerala are understandably anxious, because it is their first experience. But the help and support of their counterparts in Tamil Nadu have lent them the confidence to go ahead.

POLY HOUSE FARMING

An advanced form of Precision Farming, in which the suitable atmosphere for cultivation i.e., temperature, humidity, wetness etc. is simulated. Though yield is very high it is prohibitively expensive. As such, ordinary farmers would not be able to afford it. It is in fact a market-oriented farming method that circumvents the 'seasonability' of crops. Any crop can be grown out of season. Though somewhat popular in Tamil Nadu, in Palakkad only 12 farmers have opted for it.

DRAWBACK

Organic farming is not possible in Precision Farming because only water-soluble chemical fertilizers are used. Moreover, the direct application of fertilizer onto the roots of the plants might cause some damage. But scientists explain that it is safe since no fertilizer is unnecessarily used here. Since precision farming is only ten years old, going into its drawbacks at this stage might be premature.

MARKETING

In marketing also the Kerala farmers will secure the help of Tamil Nadu. "Marketing is very important. Here also we will have their help. They have gone about it brilliantly!" exclaims an admiring Krishnankutty. The farmers of Palakkad are expectantly thrilled at a future, pregnant with the prospect of a green promise.

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THE HINDU, Sunday 5th December 2004

THE HINDU DEC. 5th 2004

Precision farming in Dharmapuri becomes trendsetter

By S.Prasad

DHARMAPURI, DEC. 4. The Tamil Nadu Precision Farming Project, launched on 150 hectares in Dharmapuri in 2004-05, is proving a success story with growing demand for its replication in other blocks. After the completion of groundwork, planting of hybrid chillies (NS-1701) has begun at Agaram-Kartharpatti in the Palacode block.

About 50 farmers are participating in the project, which aims at encouraging environmentally benign and remunerative agricultural practices. The Tamil Nadu Agricultural University, (TNAU) Coimbatore is the implementing agency. The project envisages cultivation of vegetable crops with the focus on imparting skills in state-of-the-art technologies to farmers.

Three years

The Chief Minister announced the project for Dharmapuri district on an outlay of Rs.7.2 crores, to be implemented over three years.

The features include promotion of hi-tech and precision horticulture, maximising the production of vegetable crops, training farmers in hi-tech horticulture, empowering them in marketing and ensuring their economic prosperity.

According to the Collector, Ashish Vachhani, "water intensive cultivation is just not an option in Dharmapuri district. The objective is to move towards environmentally-benign and remunerative systems.

Precision farming aims at replacing water-intensive cultivation with environmentally-benign cropping systems which not only save water but also ensure higher returns to farmers."

Eligibility criteria

The eligibility criteria are: Landholdings should be within a contiguous block and adequate supply of water has to be ensured by the farmer for drip irrigation.

The farmers should have a hectare each and possess proper documents. The land should be vacant for current season cultivation.

The beneficiaries will enjoy 100 per cent subsidy during the first year and 90 and 80 per cent during the second and third years. They will raise vegetable crops in rotation for three years. Tomato, onion, lady's finger, baby born, chillies, cauliflower and cabbage would be cultivated using hybrid seeds.

In the first year, the farmers will be provided with the fertigation system for a hectare on an outlay of Rs.75, 000 and all inputs worth Rs.40,000, free of cost.

Adequate training

Mr. Vachhani said the farmers were given adequate training in the operation of drip-cum-fertigation system. Scientists of the University would stay with the farmers in villages and train them in the use of liquid fertilizers, plant hormones, special operations in crop regulation, assessment of harvest maturity, grading and sorting.

They would also extend assistance in market tie-ups, and market information on price.

The farmers have also established the 'Adhiyaman Precision Farming Association' to spearhead the raising of five successive crops on their own with assistance from the TNAU scientists.

Businessline, October 16, 2006

Precision farming paying dividends

TN farm varsity project to overcome deficit irrigation

M.J. Prabhu
Chennai, Oct. 16

Venkatesan, a farmer in Dharmapuri district, Tamil Nadu has earned a profit of Rs 3.90 lakh through tomato cultivation alone in his two-hectare land. He has bought another two hectares with that money.

If some farmers in Dharmapuri and Krishnagiri districts of Tamil Nadu are able to earn handsome profits from cultivation of vegetables such as cabbage, cauliflower, chilli and tomato, it is due precision farming.

Reaping benefits: A farmer checking his drip irrigation pipeline at a village in Krishnagiri district of Tamil Nadu. He is one of the farmers covered by a precision farming project launched by Tamil Nadu Government in about 400 hectares. —M.J. Prabhu

PROJECT DETAILS

The Tamil Nadu Government has launched a three-year precision farming project in these two districts in about 400 hectares at an outlay of Rs 7.20 crore. The project is set to be extended to six more districts, including Thanjavur, in the State. In view of the project's success, it has been scaled up to 700 hectares during 2005-06 and a budget provision of Rs 10 crore has been made.

"The project in Dharmapuri and Krishnagiri districts is a demonstration for the entire State with the hope that the technologies are taken to all the districts in Tamil Nadu and mitigate the problems related to deficit irrigation water resources and ensure better livelihood system for the farmers," says Dr V. Ramasamy, Vice-Chancellor, TNAU.

SUBSIDY

Beneficiary farmers enjoy 100 per cent subsidy towards cultivation expenses and drip and fertigation systems. (Rs 40,000 plus Rs 75,000 a hectare) in the first year. In the second year, the farmers contribute 10 per cent of the margin money (Rs 11,500) and during the third year, they contribute 20 per cent of the amount (Rs 23,000).

Fertigation is a system wherein application of plant nutrients to a crop is done through irrigation.

Installation of drip irrigation system, raising of community nursery and cultivating operations including plant protection measures are done in time to ensure plants are cent per cent productive.

The produce from precision farm has been found to be excellent in quality and commands a premium in all the markets. The farmers have been made aware of the intricacies of pesticide quality, dosage, time of spraying and method of preparation.

CROP DIVERSIFICATION

According to Mr K. Nainan Kumar, a beneficiary farmer in Dharmapuri district, several precision farmers have opted for crop diversification in crops such as tomato, chilli, cabbage and cauliflower owing to high-yield and better returns.

As a hi-tech practice, the seedlings are raised under protected condition

Besides maintenance of required population per unit area, the crops are raised in paired row system in broad beds.

This led to the plants exhibiting better growth and development, resulting in higher productivity.

"By adopting fertigation practices, there is 25 per cent saving of fertilisers and complete utilisation of applied nutrients by the plants. The uniform field stand of the crops have helped us to obtain 45-50 per cent increased yield compared to the conventional system," said Mr P. Rama Reddy, a farmer in Krishnagiri. Currently, he is cultivating tomato in his two-acre land.

INCREASED YIELD

In Krishnagiri, cabbage, cauliflower, chilli and tomato were raised in 100 hectares. Cabbage and cauliflower farmers got a yield of 60 tonnes a hectare each (an increase of 20 per cent) against 50 tonnes by other farmers.

According to Prof. E. Vadivel, Director of Extension Education and nodal officer of the Project, Tamil Nadu Agricultural University, Coimbatore, farmers who raised tomato got a yield of about 65 tonnes (an increase of 63 per cent over non-project farmer) as against 40 tonnes per hectare, while chilli farmers harvested about 29 tonnes against 15 tonnes per hectare under normal cultivation (an increase of 95 per cent).

"We are now able to save 40-60 per cent water when compared to the normal flooding system practised practiced by us earlier under conventional farming," said Mr K. Ponnuvel, another beneficiary farmer of Dharmapuri district.

Those who were irrigating one hectare previously, are now irrigating 1.4-1.6 hectare through drip/fertigation system, he said.

In general, the profit margin has been higher in all the crops under precision farming. This has been achieved by increased yield and reduced labour cost particularly for irrigation and weed management, explained Dr Ramasamy.

FARMER'S NOTEBOOK

Continuing success of precision farming in Tamil Nadu

A farmer has earned more than 5 lakhs from 120 cents in 11 months

M.J. PRABU

New innovations and technologies for increasing crop yield have mostly been the fort of agricultural scientists and researchers.

Precision Farming Technology is one such innovationthat has been introduced for the first time in the country by scientists from the Tamil Nadu Agricultural University (TNAU), Coimbatore.

Precision farming promises to increase the yield of crops, and practically any crop variety can be cultivated under this system.

Very popular

Presently this project is meeting with large success in many districts of Tamil Nadu. Those farmers, already under this project, have surrendered their success in terms of yield and marketing to this technology.

Unlike certain other technologies which teach or guide the farmer to grow his crops-but leave himto market hisown produce, precision technology scientists stay with the farmers right from sowing the seeds to marketing the produce.

Marketing made easy

The research team identifies prospective buyers in and around the area andbinds the farmer and the buyer in a sort of contract agreement, and oversees the entire operation.

Mr. P.M. Chinnasamy is one such precision farmer from Somenahalli village who has earned more thanRs. 5 lakh from his brinjal crop grown in 120 cents in about 11 months.

"A progressive farmer can get only 60 tonnes per hectare whereas Mr. Chinnasamy has harvested about 170 tonnes in 120 cents, which is quite a feat.

RECORD BREAK: *Mr. Chinnasamy of Tamil Nadu with his harvested brinjals.* – PHOTO: TNAU

"It is 467 per cent higher than the conventional system of cultivation," said Dr. Vadivel, Director of Extension Education, TNAU. Giving details he said, the seeds were sown in protrays raised under shade net and transplanted on the 35th day after sowing.

Field preparation

The field was prepared by using chisel plough first, followed by disc and cultivators-four times. Before last ploughing, a basal dose of 700 kg of super phosphate, 25 tonnes offarmyard manure along with Azospirillum and Phosphobacteria each at 2 kg per hectare was applied.

Raised beds of 60 cm width were formed and the seedlings planted on the centre of the raised beds at a spacing of 45 cm.

Wastage avoided

Under the conventional system 23,000 plants are required for planting.But, forprecision farming system, only 14,500 plants are required.

Fertilizers were given only through fertigation, which avoids wastage through flood irrigation.

All water soluble fertilizers were applied based on the time and the stage of the crop.

The plant growth was found to be good,and thiscontinued till the last harvest. Due to the continuous growth and flowering, harvesting was done once in two days. The flowering is mainly due to continuous supply of fertigation and constant absorption of nutrients.

Extended crop life

Brinjal is a six month crop but under precision farming the duration can be extended up to one year. It is an advantage over the traditional system since the extension of harvest increases the productivity, according to Dr. I. Muthuvel, Assistant Professor, Horticulture of the University.

The main pests were fruit borer that was controlled effectively spraying monocrotophos or chloripyriphos at 2 ml per litre of water, and in later stages Indoxacarb at 0.5 ml per litre of water, according to Dr. Muthuvel.

Attractive fruits

Diseases such as blight and fruit rot were controlled by spraying mancozeb at 2 ml per litre of water. The fruits are quite attractive and the shelf life is more compared to that grown under conventional system. Mr. Chinnasamy has so far harvested 170 tonnes and has sold them for Rs. 5-15 a kg.

For more details readers can contact Dr. I. Muthuvel, Assistant Professor (Horticulture), TNAU, Coimbatore, email: muthu_hort@yahoo.co.in, mobile: 9443715948 and Mr. P. M. Chinnasamy, Somenahalli, Dharmapuri district, Tamil Nadu.

ஏக்கருக்கு எவ்வளவு மகசூல்? எவ்வளவு இலாபம்! - "நீங்களே கணக்குப் பண்ணிப் பாருங்க!"

"குஷால்"

உழவு செய்யத் தேவையில்லை, கோமியமும், கோணங்கித் தனமான அறிவுரைகளுமே போதும் இந்த விவசாயத்திற்கு என்று பயிற்சி அளித்து வரும் இயற்கை வேளாண் பிரசாரகர்களுக்கும், என்.ஜி.ஓ.க்களுக்கும், பச்சைப் பத்திரிகைகளுக்கும், "செத்தே இங்க வந்துட்டுப் போங்கண்ணா..." வென்று செவியிழுத்துச் சேதிகள் சொல்லுது இந்த கட்டுரை!

"குஷால்"

தர்மபுரி, கிருஷ்ணகிரி பக்கம் நீளமாக உள்ள பச்சைக் கத்தரிச் சாகுபடி ரொம்ப பிரபலம் மஹிகோ நிறுவனத்தின் "வொய்ட் லாங்" (White Long) ஹைபிரிடு இந்த வகைக் கத்தரி இனம். கடந்த 1½ ஆண்டுகளாக, மஹிகோ நிறுவனம் இந்த ஹைபிரிடு விதையை விநியோகிக்காமல் இருந்தது; தற்போது விநியோகிக்க ஆரம்பித்துள்ளது.

நாம் பேட்டி கண்டு, இக்கட்டுரையில் வெளியாகும் சாகுபடி விபரங்களைத் தரும் திரு சின்ன சாமி, அங்கூர் விதை நிறுவனத்தின் "குஷாலா" என்கிற இவ்வகை ஹைபிரிடைப் பயிரிட்டுள்ளார். கடந்த மாதம் இவரைப் பேட்டி கண்டு கட்டுரை வெளியிட முயற்சி செய்தோம். கடந்த மாதம் திரு சின்னசாமியைப் பார்க்க முடியவில்லை. இம்மாதம், மறுபடி தர்மபுரி சென்று, பேட்டிகண்டு அவரது சாகுபடி அனுபவங்களைத் தருகிறோம்.

பேட்டிக்கு முன்...

காய்கறிச் சாகுபடியில் பெயரெடுத்துள்ள தர்மபுரி விவசாயிகள், தமிழ்நாடு வேளாண் பல்கலைக் கழகத்தின் "துல்லியப் பண்ணையம்" (Precision Farming) என்கிற வேளாண் பண்ணையத் திட்டத்தின் மூலம், வழி நடத்தப்பட்டு காய்கறிச் சாகுபடியில் அதிக லாபம் ஈட்டி வருவது குறிப்பிடத்தக்கது.

துல்லியப் பண்ணையத்தின் வழிகாட்டிகள்

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விவசாயிகளின் உரக்கடை

இதில் கலந்து கொண்டுள்ள 160 விவசாயிகளும் ஆளுக்குக் கொஞ்சம் பணம் போட்டு, ஓர் உரக் கடையையும் வைத்து, அதன் மூலம் பகுதி விவசாயி களுக்கு நியாய விலையில் விதை, பூச்சி மருந்து ஆகியவற்றை விநியோகித்து வருவதும் குறிப்பிடத் தக்கது.

அந்த கடையின் முகவரி

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FARMER'S NOTEBOOK

Growing muskmelon as precision crop is highly profitable

The beneficiary has earned a net profit of more than two lakh rupees

M.J. PRABU

Muskmelon is a fruit crop cultivated widely by farmers in our country particularly during the summer season. The fruit is used for making sherbets and desserts which have a cooling effect on the body.

Though it is mainly a summer crop it is now being cultivated throughout the year in Tamil Nadu, thanks to the Precision Farming technology from the Tamil Nadu Agricultural University (TNAU), Coimbatore, Tamil Nadu.

Mr. C. Boopathy, a beneficiary farmer of the precision farming technology (PFT) in Morappur village of Dharmapuri district in Tamil Nadu has grown musk melon in his one hectare farm.

MORE YIELD: *The farmer Mr. C. Boopathy of Dharmaputi district in Tamil Nadu has harvested about 45 tonnes of fruit from an hectare.* – PHOTO: TNAU

Net profit

"I had spent about Rs. 90,000 as cultivation cost and was able to get a gross income of Rs. 3,60,000. Deducting the expense I have earned a net profit of Rs. 2,70,000 solely from musk melon," he says.

The seedlings are raised in protrays which are filled with cocopeat and grown in a shade net nursery under protected condition. They are ready for transplanting in the main field on 12th day of sowing, according to him.

Healthy plants

The root growth is excellent when the seedlings are grown in protrays and the seedlings are resistant to pests and diseases. All the plants are uniform, healthy and the portrays can be easily taken to the main field for transplanting, according to Dr. E. Vadivel, Director, Extension Education, TNAU.

About 20,000 seedlings are required for planting in one hectare.

The field was readied using a chisel plough and disc (once) and then by cultivators, four times (with the help of a tractor). Then the seedlings were planted on raised beds of 1x4 feet (one foot height and four feet wide beds).

About 25 tonnes of farm yard manure (FYM), 2 kg of biofertilizers such as Azospirillum or Phosphobacteria and 470 kg of super phosphate were applied (for one hectare) as a basal application before the last ploughing.

Water soluble fertilizers were applied through fertigation pipes (similar to drip irrigation pipes) which avoid water wastage. The fertilizer application is done based on the time and the stage of the crop.

Unlike crops grown under the conventional system, precision crops come to harvest at an earlier stage. For example, this melon was harvested on the 65th day after planting.

Uniform fruit growth

Under normal practices harvesting can be done after the 75th day after planting. In addition there are more number of flowers in the plant and the fruit growth is also uniform, according to Dr. R.I. Muthuvel, Assistant Professor, Horticulture.

Also, the fruits can be harvested in a single harvest unlike conventional system where 3-4 harvests are required.

Major pests affecting the crop are beetles, white flies and fruit borers. Beetles and white flies can be controlled by spraying 2gms of Carboryl or 0.5 gms of Acetamopride diluted in one litre of water. Spraying 2 ml of Trizophos or 2gm of Thiodicarb or Methomil in one litre of water is found effective for the control of fruit borers.

The fruit weight is also more compared fetches a good price in the market due to higher sweet content and shelf life, according to Dr. Muthuvel.

"I was able to harvest two fruits from a single vine he said. Each fruit weighed 1.25 - 1.5 kg. About 45 tonnes of fruit was harvested from a hectare and sold at Rs. 5 to 12 a kg," said Mr. Boopathy.

Readers can contact Dr. I. Muthuvel, Assistant Professor, Horticulture, TNAU, Coimbatore: 641 003, Tamil Nadu, mobile: 94437-15948 and Mr. C. Boopathy, Morappur village, Dharmapuri district, Tamil Nadu.

வளரும் வேளாண்மை

மார்ச் 2007

தனி இதழ் விலை ரூ. 7.00

துல்லிய பண்ணைய சிறப்பிதழ்

தமிழ்நாடு வேளாண்மைப் பல்கலைக் கழகம்

கோயம்புத்தூர் - 641 003

THE HINDU, Thursday, October 26, 2006

FARMER'S NOTEBOOK

Drip fertigation boosts yield in banana cultivation

The technology helps conserve water and aids good growth

M.J. PRABU

RESEARCHERS AT the Tamil Nadu Agricultural University (TNAU), Coimbatore, have implemented state sponsored precision farming through drip fertigation project in Krishnagiri and Dharmapuri districts of Tamil Nadu. The project costs Rs.10 crore and covers about 400 hectares in the districts.

This project is a boon to all farmers in these two districts who have been cultivating vegetables such as tomato, bhendi and cavendish banana varieties.

Equal weight

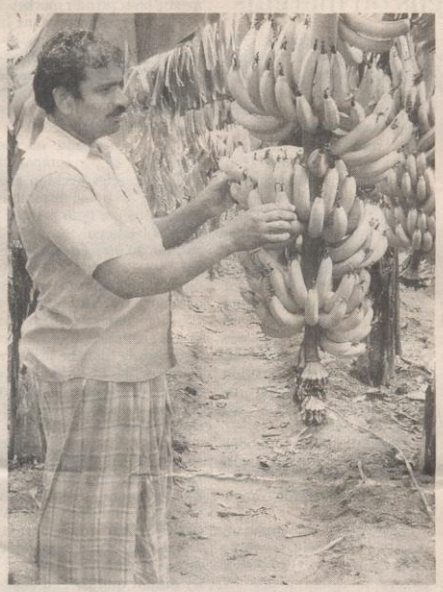
All the crops attain uniform height and fruits and vegetables attain equal weight when grown under fertigation system (application of water soluble fertilizer through drip irrigation), according to Dr. I. Muthuvel, Assistant Project Officer, Tamil Nadu Precision Farming Project, Dharmapuri.

The technology, in addition to conserving water, has also helped in good growth of the crops, according to Mr. M. Venkatesan, a beneficiary farmer in the district who is at present cultivating G-9 cavendish banana variety in his one hectare land.

About 25 hectares are at present under banana cultivation in Dharmapuri district, according to Dr. Muthuvel.

Saving water

"Precision farming has helped me obtain uniform banana bunches with even ripening and saved as much as 50 per cent water compared with the conventional system where water was allowed to flow in furrows in the fields," said Mr. Venkatesan.



UNIFORM GROWTH: *Mr. Venkatesan, banana farmer of Dharmapuri having a look at his crop, which is ready for harvest.* – PHOTO: M.J. PRABU

Giving details on field preparation, Mr. Venkatesan said, about 2 kg of super phosphate, 200 gm of gypsum, 20 gm of furidon and 5 kg of farmyard manure were applied to the field and ploughed well.

Raised beds of about one foot in height were prepared. Cubical pits of about 2 cubic feet were dug on the raised beds and the suckers were placed inside the pit and covered with soil and watered immediately.

Fertigation was done once every five days. About 3,000 suckers are needed for planting in one hectare, according to Mr. Venkatesan.

After two months of planting, emerging side suckers were manually removed. Side suckers have to be removed as and when noticed.

Only one side sucker can be allowed to grow in the eighth month and the rest removed, explained Dr. Muthuvel.

In the seventh month, stakes were tied to the trees to prevent them from falling due to heavy wind or rains. The variety was found susceptible to erwina rot infestation.

Drenching the base of the plant with about 1 gm emisan solution diluted in a litre of water was found effective in controlling this infestation.

Yield statistics

The first bunch of fruits appear sometime during the eighth month after planting. During this time it is advisable for farmers to spray polyfeed over the fruit bunches to obtain uniform weight and growth.

About 100 tonnes of fruits were harvested in the eleventh month after planting and sold at Rs. 8,000 per tonne.

"I expect to harvest the first ratoon crop in the 21st month and the second in the 30th month," said Venkatesan.

The main advantage of using fertigation technique according to Dr. Muthuvel, is that "all the bunches from the three crops will be almost uniform in size and weight."

Irrigation cost

Bunches from the planted crop weighed 30-32 kg each. The cost of the drip system worked out to about Rs.1.15 lakh per hectare.

"I had purchased the suckers at a cost of Rs. 11 per sucker and have spent about Rs.1 lakh towards cultivation expenses," said Mr. Venkatesan.

For more information Dr. I. Muthuvel can be contacted at Regional Research Station, Paiyur-635 112, Krishnagiri District, phone: 04343-254037, mobile: 9443715948, email: muthu_hort@yahoo.co.in and Mr. Venkatesan can be contacted at Poduthampatti Post, Kuddampatti village, Somanahalli, Palacode Taluka, Dharmapuri district, Tamil Nadu.

THE HINDU, 22 Feb 2007

THE HINDU 22/02/07

FARMER'S NOTEBOOK

Technology that triples total tomato tonnage

About 135 tonnes of fruits were harvested in nine months

M.J.PRABU

SCIENTISTS AT the Tamil Nadu Agricultural University (TNAU), Coimbatore, have developed a technology called precision farming, said to be a first of its kind in India.

The technology is being presently implemented in several major areas of Tamil Nadu.

At present precision technology is implemented in about 200 hectares in Dharmapuri district in Tamil Nadu. More than 100 farmers have been benefited by this project.

Hybrid chilli in about 30 hectares, hybrid tomato in about 20 hectares and cavendish (green) banana variety in about 10 hectares were raised successfully under precision farming system.

BOUNTIFUL YIELD: *Mr. P.M. Chinnasamy, a beneficiary farmer in Dharmapuri district of Tamil Nadu in his field.* – PHOTO: TNAU

Technical guidelines

Under this farming concept, the University gives technical advice to farmers on soil and water conditions, weather mapping, forewarning of pest attacks and also supplies water soluble fertilizers to be applied along with drip irrigation.

Mr. P.M. Chinnasamy, is one such beneficiary farmer in Dharmapuri, who has harvested about 135 tonnes of tomato from his one hectare field in nine months using this technology.

Higher yield

The yield is almost triple that of the farmers growing tomato under the conventional system of planting. Under the conventional system the crop is grown under channel irrigation and only about 25-30 tonnes of fruits can be expected, according to Mr. Chinnasamy.

The life of the tomato crops grown under normal cultivation (channel or furrow irrigation) is only 3-4 months, whereas the life span of the same crop grown under precision technology can be extended to 8-9 months, according to Dr. I. Muthuvel, Assistant Project Officer, Tamil Nadu Precision Farming Project in Dharmapuri.

The seeds were first sown in small plastic pots, and kept under a shade net in a nursery. Cocopeat was used as a growing medium. "The cocopeat was completely sterilised with chemical or under steam treatment before being used.

The seedling growth was uniform and without any pest and disease infestations," said Dr. Muthuvel. The main field was installed with an in-line drip irrigation system at a spacing of 1.5 m lateral intervals. Drippers at 60 cm spacing were used. About one hour of irrigation is sufficient to cover one hectare of land, according to Dr. Muthuvel.

The field was ploughed well by mixing about 25 tonnes of farmyard manure, 2 kg of azospyrillum and phospobacteria each, about 2.5 kg of pseudomonas and 1,172 kg of super phosphate.

Raised beds of about one foot height were formed and the laterals were placed at the centre of the beds. Planting was done on either side of the laterals at a spacing of 90 x 60 x 60 cm. About 20,000 plants were planted in one hectare.Drip fertigation (application of water soluble fertilizer along with water) was done through a 60-litre capacity fertilizer tank and once in three days starting from the day of planting.

Flower drop

Weeding was done once after 30 days and again one month later. The plants were tied to poles for support on the 30th day after planting. About 1.25ml of triacontanol and 0.25ml planofix hormone diluted in one litre of water were sprayed on the 30th, 60th and 75th day to control flower dropping.

The crop was found susceptible to infestations such as sucking pest, leaf minor and cutworm.

Infestations control

Spraying 2ml of triozophos diluted in one litre of water was found effective in managing sucking pest, leaf minor and cutworms infestations, while fruit borer infestation was controlled by spraying 2ml of endosulfan or chloripyriphos diluted in one litre of water.

The first harvest was done on the 65th day after planting. The fruits were uniform in size and the skin colour was deep red.

The fruits were sold at the rate of Rs.10-20 per kg. Mr. Chinnasamy, has earned a net income of about Rs. 5 lakhs from tomato cultivation in nine months.

For more information readers can contact Dr. I. Muthuvel, Assistant Project Officer, Tamil Nadu Precision Farming Project, 46/25 B, 66 feet road, Barathipuram, Dharmapuri district, Tamil Nadu, email: muthu_hort@yahoo.co.in, mobile: 9443715948.

Farmers in Dharmapuri start own retail chain

Radha Venkatesan | TNN

Dharmapuri: The multinational retail chain, Wallmart, wanted to buy the uniformly big bananas grown in the 'precision' farms of Jaragu village in Dharmapuri district of western Tamil Nadu. Representatives of Reliance Fresh came down to the dusty hamlets of Dharmapuri to procure brinjals, beetroots and tomatoes. The Aditya Birla Group too was keen on picking tasty watermelons from Somanahalli for their retail shelves.

But the small and marginal farmers of the district said 'no' to the multinational companies. For the first time in Tamil Nadu, these farmers have gone corporate and will open their own retail outlets on the national highways close to Bangalore and Chennai.

Last February, 200 farmers from the district put in seed money of Rs. 10,000 each to start a new farmers' company — the Dharmapuri Precision Farmers Agro Services Ltd. In just one year, the company has become a dealer of major fertilizer and pesticide brands and a leading retail fertilizer outlet in Dharmapuri. "Our company's turnover, through sale of fertilisers and pesticides, has crossed Rs. 2.5 crore. All the 200 farmers, who are the shareholders, have got Rs. 6,000 dividend," said the company's secretary C Boopathy.

The services of the company include door-delivery of a family pack of vegetables and fruits every week to residents of Chennai and Bangalore on orders placed online.

Indeed, the initiative to corporatise the farming community came from the Tamil Nadu Agricultural University.

Just as the yield was dipping and some fertilizer dealers were overcharging the farmers, the university, in a trailblazing venture, initiated 200 farmers in Dharmapuri district into precision farming technology. They were taught to grow seedlings on trays instead of farmlands, water the crop in drips instead of flooding and use water soluble fertilisers so that the entire crop gets uniformly adequate amount of fertilizer.

The result: a micro-green revolution in the backyards of Dharmapuri. A marginal farmer, P M Chinnasamy, produced a record 147 tonnes of brinjal in his one acre and 15 cent land in Somanahalli hamlet. His weekly profit has now touched Rs. 60,000, at least four times that of a middle-level software professional.

A small-time farmer, G Mahendran, has made a whopping Rs. 3.5 lakh from his 2.5-acre crop of tomatoes and bananas.

But while their crop yield grew, the local fertiliser dealers were taking the farmers for a ride. While the maximum retail price of di-ammmonium phospate (DAP) was pegged at Rs. 486 per bag, they were selling it for more than Rs. 650 per bag. Besides, they were forcing the farmers into taking unwanted pesticides, increasing the cultivation cost.

"So, we decided to take up dealership of all the fertiliser and pesticide companies," says Boopathy. Now, in the face of the fertiliser crunch too these farmers' outlets sells DAP at the MRP rate. Also, the company is now collectively selling the produce of all of its shareholding farmers to ensure a fair price for their vegetables and fruits.

"When multinationals sell vegetables and fruits, why not the farmers?" asks E Vadivel, director, Extension Education of the TNAU. With bank loan and a tie-up with another private retailer, the farmers' company will provide online shopping facility for the consumers.

DIRECT SALES

- For the first time, farmers in the state have gone corporate and will open their own retail outlets on the Bangalore -Chennai highway
- In February 2008, 200 farmers put in seed money of Rs. 10,000 to start a farmer's company

TIMES REGION

8

THE TIMES OF INDIA, CHENNAI
TUESDAY, JANUARY 6, 2009

Dharmapuri farmer hits jackpot with brinjal

Jayaraj Sivan | TNN

Chennai: It makes for quite an inspiring story against odds - of not only the revival of a dying agricultural sector, but also of a group of farmers from Palacode, a taluk in Dharmapuri district, producing quite a few millionaires from among their lot by lending a corporate touch to farming operations.

Forty-three-year-old P M Chinnasamy, an eighth standard dropout and leader of the group, is now flying high after harvesting a record yield of 450 tonnes of brinjal from only three acres by following "precision farming" techniques introduced by the Tamil Nadu Agricultural University (TNAU). His income from the sale of brinjal touched Rs 45 lakh in 2008.

A beaming Chinnasamy told TOI, "Last January, at the time of raising the brinjal nursery, I had set myself the target of buying a Scorpio. By God's grace, I have achieved it. The price of brinjal fluctuated between Rs 7 and Rs 24 per kg. On an average, I received Rs 10 per kg for the entire yield." Chinnasamy's expenditure so far has hardly been Rs 1 lakh per acre, meaning he has made a cool profit of Rs 42 lakh.

MONEY SPINNER: Chinnasamy

The brinjal plants look quite healthy even after a year of raising and they will survive for another year, said Chinnasamy. Apart from heading the Adhiyaman Precision Farming Association (there are similar associations all over Dharmapuri and Krishnagiri districts), Chinnasamy is also chairman-cum-managing director of Dharmapuri Precision Farmers' Agro Services, a firm incorporated under the Company's Act, which sells farm inputs. The entreprise was started two years ago, with equity contributed by 166 farmers, each bringing in Rs 10,000. Last year, the company paid Rs 4,000 as bonus to each promoter. "We will be able to return the balance equity - Rs 6,000 per head - this year," said Chinnasamy.

"We started precision farming technique in Tamil Nadu in 2005 at a very conservative estimate of Rs 7.2 crore for covering 1,000 acres of demonstration farms. We outbid Israel which quoted Rs 17.5 crore for the same work. Forty-five crops were covered under the scheme and Chinnasamy's village was selected for setting up the first model farm. Precision farming techniques include chisel ploughing, fertigation (manuring and watering through drip irrigation), raising a community nursery, integrated pest and disease management and sorting, and grading and labelling of produce. The benefits are double yields and economy in the use of water, power and labour. Also, 90 per cent of the produce is first grade," E Vadivel, TNAU's nodal officer for implementing precision farming in the state, said.

So far, 22,200 hectares of land and an equal number of farmers have been covered across Tamil Nadu under the precision farming initiative, Vadivel pointed out.

jayaraj.sivan@timesgroup.com

துல்லிய பண்ணைத்திட்ட விவசாயிகள் புதுமுயற்சி

ரூ.15 லட்சத்தில் இடுபொருட்கள் விற்பனை நிறுவனம்

விளை பொருட்கள் ஏற்றுமதிக்கு நடவடிக்கை

தர்மபுரி, பிப்.2: தர்மபுரி மாவட்டத்தில் துல்லிய பண்ணைத்திட்டம் செயல்படுத்தப்பட்டு வருகிறது. இதில் உறுப்பினர்களாக உள்ள 150 விவசாயிகள் ஒன்றிணைந்து, தலா ரூ.10 ஆயிரம் முதலீடு செய்து தர்மபுரி பேருந்து நிலையம் அருகே உள்ள வணிக வளாகத்தில் அக்ரோ சர்வீசஸ் லிட். என்ற நிறுவனத்தை துவக்கியுள்ளனர்.

இதன் தொடக்கவிழா நேற்று நடந்தது. நிறுவன தலைவர் சின்னசாமி தலைமை தாங்கினார். செயலாளர் பூபதி வரவேற்றார்.

மாவட்ட ஆட்சியர் பங்கஜ்குமார் பன்சால் நிறுவனத்தை திறந்து வைத்து, குத்துவிளக்கேற்றி வைத்தார்.

இதுகுறித்து நிறுவன தலைவர் சின்னசாமி கூறியதாவது: தமிழ்நாடு வேளாண் பல்கலைக்கழக விஞ்ஞானிகளால், தமிழ்நாட்டில் முதன்முதலாக தர்மபுரியில் துல்லிய பண்ணைத்திட்டம் செயல்படுத்தப்பட்டு வருகிறது. இத்திட்டத்தின் மூலம் 200 விவசாயிகள் பயன்பெற்றுள்ளனர்.

துல்லிய பண்ணை விவசாயிகளுக்கு தேவையான தரமான இடுபொருட்கள் சரியான தருணத்தில் கிடைக்கும் வகையில், இத்திட்ட விவசாயிகள் 150 பேர் ஒன்றிணைந்து ரூ.15 லட்சம் முதலீடு செய்து இந்நிறுவனத்தை துவக்கி உள்ளோம்.

இந்நிறுவனத்தின் மூலம் துல்லிய பண்ணைத்திட்டத்திற்கு தேவையான இடுபொருட்கள், நீரில் கரையும் உரம், உயிர் உரம், தரமான பூச்சி மற்றும் பூஞ்சான கொல்லி மருந்துகள், சொட்டு நீர் பாசன உபகரணங்கள், வீரிய ஒட்டு ரக விதைகள் ஆகியவற்றை குறைந்த விலையில் விவசாயிகளுக்கு விற்பனை செய்ய உள்ளோம்.

எதிர்வரும் காலத்தில், விவசாயிகளிடம் இருந்து விளை பொருட்களை வாங்கி பன்னாட்டு நிறுவனங்களுக்கு விற்பனை செய்யவும் முயற்சி மேற்கொள்ளப்பட இருக்கிறது. இதற்காக மாவட்ட ஆட்சியர், வணிக வளாகத்தின் ஒரு கடையை ஒதுக்கி தந்து உதவியுள்ளார். மேலும், தொழில்நுட்ப வல்லுனர்களை ஆலோசகர்களாக நியமித்து, விவசாயிகளுக்கு உரிய தொழில் நுட்பங்களை தொடர்ந்து வழங்கவும் திட்டமிட்டுள்ளோம். இதற்கு, வேளாண்மை பல்கலைக்கழகம் எங்களுக்கு உறுதுணையாக உள்ளது. இவ்வாறு சின்னசாமி கூறினார்.

JET'S ATLANTIC FLIGHT STAY AHEAD. EVERY WEEK BANGALORE BLUES Rs 10
9 July 2007 www.businessworld.in
Businessworld

cover story

FARM RETAIL

WELCOMING THE WINDFALL

Farmers of Dharmapuri in Tamil Nadu are ready for the retail age

CP BHANUPRIGHAM

M. ALLIRAJAN

FORTY-year-old G. Mahendran anxiously scans his mobile phone screen as he searches for that SMS from Safal, the fruit and vegetable brand of Mother Dairy, a cooperative promoted by the National Dairy Development Board. Until recently, Mahendran, a small farmer in Jarugu in Tamil Nadu's Dharmapuri district, had no way of knowing what price his produce would fetch at auctions. But Safal helps him track it, real time.

That's just one way Safal is endearing itself to farmers. The cooperative also liaises directly with farmers, helps them grade and auction their produce and charges them just 3.5 per cent in commission for all this, as against 10 per cent charged by local *mandis*.

So Jarugu's farmers have stopped selling their bananas in the marketplace and send their supplies directly to Safal. Not only do Safal stores give the farmers a better grading for their bananas, it also pays them in about a week's time, much quicker than the several weeks it takes middlemen. All this nets farmers much more than what they used to make. "We got nearly double the price offered to us by *mandis*," says A.K. Govindan, a farmer.

He and Mahendran are among 200 members of Dharmapuri Precision Farmers Association, a cooperative committed to modern farming. Each member has contributed Rs 20,000 to the cooperative, which in turn has floated an agro-services company, Dharmapuri Precision Farmers Agro Services Limited. Operated by and for farmers, the firm uses its capital to buy fertilisers and seeds in bulk, lowering input costs for its shareholders by 5-10 per cent.

Another project helping farmers meet the challenges of new-age retail is the Tamil Nadu Precision Farming Project (TNPFP) run by the Tamil Nadu Agricultural University (TNAU). "The forum has given farmers negotiating power," says I. Muthuvel, assistant project officer, TNPFP. "We have also arranged for crop insurance." TNAU had also organised supply chain training with assistance from the Michigan State University in the US.

But problems remain. There are no cold storages in the area so farmers have to use expensive road transportation to reach *mandis*. S.R. Dhanasekaran, a farmer who raises watermelons and muskmelons in Dharmapuri, says he often fails to get his products to the market in time. "Though we have achieved good yields through precision farming, marketing and logistics continue to be weak links," says C. Boopathi, secretary, Dharmapuri Precision Farmers Agro Services.

In response, the association is now planning to set up packing houses and cold storage facilities on five acres of land it has leased near National Highway 5, which connects to Bangalore. Later, Boopathi says, the association will buy its own vehicles, introduce a grading system and bring its produce under a single brand. The results are seen in local tomato yields, which have gone up from 10 tonnes per hectare to 35 tonnes. This initial success has brought several retail chains — including Reliance and Aditya Birla Group — knocking on local doors. Once Govindan and friends would have jumped at the chance of selling to such players. But now they've learnt the ropes and are negotiating hard by demanding stable pricing from the companies. The times are a'changing. ■

Be precise; reap profit

Precision farming brings cheer to farmers in Tirupur

R. Vimal Kumar

TIRUPUR: S. Jaganathan (59), M.Palanisamy (61) and C. Kittusamy (59), are some of the progressive farmers in Tirupur block sporting broadly smiles as their quest for transformation from productive agriculture to profitable agriculture have started yielding desiring results. They credit the change in the fortunes to adoption of precision farming techniques after them being enthused to take up the practice by the Horticulture department during a campaign conducted in the block few months ago under the Centre-sponsored Rashtriya Krishi Vikas Yojana.

Productivity

"Productivity has almost doubled and profitability increased by about 35 percent vis-à-vis conventional techniques since precision farming methodology demands less manpower and help the plants develop effective root system needed for enhanced yield," Mr. Kittusamy, told *The Hindu*.

Mr. Kittusamy has brought onion as the primary crop and maize as the second crop, over a hectare, under the precision farming at his farm at Kovilvazhi during the season.

Under the scheme, the department extended subsidy assistance to help the beneficiaries set up drip and fertigation systems besides distributing water soluable fertilizers like mono ammounium phosphate and N:P:K 19:19:19 worth Rs 25,000 free to each of the farmers covered.

For Mr. Jaganathan, who has been cultivating turmeric, onion, tomato and chillies at Muthanampalayam village for the last 30 years, the adoption of precision farming method had increased his operational efficiency considerably. "With input costs trending higher and labour shortage becoming severe owing to migration of agricultural labourers into textile and other industrial sectors seeking better remuneration, the tools offered by precision agriculture come in handy for us to have a uniform field stand of crops that increases the yield by about 50 per cent," he pointed out.

Mr. Palanisamy said that the produce from precision farming had been found to better in quality and commands premium rates in the market.

P. Santhanakrishnan, Assistant Director of Horticulture, said that the department has chalked out plans to take the technology to more farmers by taking them out on exposure visits to farms where precession farming had yielded better dividends.

REAPING BENEFITS: *A farmer in Tirupur block checking his crops raised under precision farming methodology.* – PHOTO: M. BALAJI

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RECEIPT

14274

TR-5
C.B.R. NO : 3125
To
TAMIL NADU AGRICULTURAL UNIVERSITY
CENTRE FOR AGRICULTURAL AND RURAL DEVELOPMENT STUDIES COIMBATORE-3

Date/Time : 08/10/2007 16:34:24

Agent Number:

Serial Number	Reference Number	Application Number	Title/Remarks	Amount Paid	Amount Computed	Fee Payment
1	—	2265/CHE/2007	DOUBLING THE PRODUCTIVITY OF CROPS AND ENHANCING THE WEIGHT PER UNIT VOLUME OF THE PRODUCE BY 25 PER	10000	10000	Full
	Total			10000	10000	

Received a sum of Rs. 10000 (Rupees Ten Thousand only) through

Payment Mode	Bank Name	Cheque/Draft Number	Cheque/Draft Date	Amount in Rs
Draft	State Bank of India	292887	17/08/2007	4000
Draft	State Bank of India	294285	20/09/2007	6000

For Controller of Patents & Designs

ഫലനോപ്സിസ്
ഓർക്കിഡുകൾ

വാഴക്കുളത്തെ
വലിയ പാൽക്കാരൻ

മലയാള മനോരമയുടെ
കാർഷിക മാസിക

വില: 12രൂപ

കർഷകശ്രീ

2009 ജൂലൈ

പ്രിസിഷൻ ഫാമിങ് അറിവുകൾ

എത്ര കൃത്യം

Journal of Extension Education
Vol. 17 No. 3&4, 2005

Evaluation of Market-Led-Horticulture under the Tamil Nadu Precision Farming Project

K. Rajeshkanna [1], R.K.Theodore[2] and S.D.Sivakumar[3]

ABSTRACT

The study was conducted in Dharmapuri and Krishnagiri districts of Tamil Nadu with 120 project farmers of the Tamil Nadu Precision Farming Project, With an aim to assess the perception of the farmers towards market-led-horticulture implemented under the project. The perception on market-led-horticulture was assessed by considering four dimensions viz., market assessment and decision-making, marketing assistance, market-led-production, and group formation. It was found that a majority of the respondents of both the districts possessed a highly favourable perception towards these four dimensions of market-led-horticulture. All the respondents felt that technologies like drip irrigation, fertigation and chemical pesticides are expensive when compared to conventional farming. A large proportion of the respondents felt difficulty in transporting produce to long distance markets even though opportunities existed for better price.

The horticultural sector is undergoing a rapid transformation owing to the opportunities emerging due to the WTO. In tune with this, there is a shift from production-oriented cultivation to Market-Led-Production as the horticultural sector has begun to respond to a new kind of strategy. Market-Led-Horticulture(MLH) encompasses sensitivity of farmers to market behavior, price, demands, etc., and a thorough knowledge of consumer need dynamics. MLH is possible with the latest state-of-the-art technologies including precision farming. Precision farming is a management strategy that employs detailed and site-specific information to precisely manage production inputs. Precision farming has arisen mainly in response to advances in technology, rather than through development in the fundamental sciences, which support agriculture. Precision farming envisages precise packages of crop cultivation at micro level, which enable to increase the productivity and maintain sustainability.

Keeping the above factors in mind the policy planners of the Government of Tamil Nadu sowed the seed by way of funding the Tamil Nadu Precision Farming Project (TNPFP) for implementation by the Tamil Nadu Agricultural University (TNAU), Coimbatore. The turnkey project envisages market-led-production by way of assessing the market potential for a variety of vegetable crops, to mobilize marketing support from national and

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55(B&D)

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25 JUN 2008

D.O. Letter No.8739/SP.1/2007, Dated 23.6.2008

Dear Sir,

Sub: Annual Plan 2008-2009 – Summary Record of Working Group discussions and wrap-up meeting held at Union Planning Commission on 21.2.2008 under the Chairmanship of Shri Anwarul Hoda, Member, UPC to consider the sectoral breakup of outlays for the Annual Plan 2008-2009 for Tamil Nadu - Regarding.

Ref: From the Director (FR & SP-TN), Union Planning Commission, D.O.No.13014/24/TN/2007-SP(S), dated 08.05.2008.

*****

I am to enclose a copy of the Summary Record of the Working Group discussions and wrap-up meeting held in Yojana Bhavan, New Delhi on 21.2.2008 under the Chairmanship of Shri Anwarul Hoda, Member, Union Planning Commission to consider the sectoral breakup of outlays for the Annual Plan 2008-2009 for Tamil Nadu.

2. The specific points raised in the Summary Record in respect of your Department are indicated below:-

i. During 2007-2008, a sum of Rs.185 crores has been allocated for ACA under RKVY. To continue to avail assistance under RKVY and to maintain its share, State should consider enhancing outlay in Agriculture and Allied sector depending upon availability of resources.

ii. The State should continue its endeavor of adopting scientific precision farming in major crops which has resulted not only in increase in productivity but also substantial decrease in the cost of cultivation which ensures higher returns to the farmers. DDEE

iii. The State should focus on cent percent coverage of farmers by providing them with Soil Health Cards and making soil testing facility available to the farmers at affordable rates.

iv. As regards National Horticulture Mission, the basic issue is lack of and sub standard planting material. There are 56 State farms which State should utilize for producing quality planting material and making it available to the farmers.

No. M-13048/24(TN)/2008/SP-S
Planning Commission
(State Plan Division)

Subject: Summary Record of the Working Group and Wrap up Meetings on the Annual Plan 2009-10 of Tamil Nadu held on 06.02.2009.

The Working Group Meetings were concluded with the Wrap-up Meeting Chaired by Shri Anwarul Hoda, Member. Reports of the Working Groups are annexed.

2. Member (AH) welcoming the officials of the State Government hoped that the discussions in the Working Group Meetings for the Annual Plan 2009-10 had been fruitful. The Financial Resources of the State are realistic and the State has regularly achieved the proposed outlays.

3. Sectoral view points that emerged in the meeting were:

a) Agriculture: The total area under foodgrains is expected to increase from 37.6 lakh hectares in 2007-08 to 45.50 lakh hectares in 2008-09. Tamil Nadu has done well in irrigated agriculture particularly rice, sugarcane and groundnut. Foodgrains production is expected to increase to 84.45 lakh tones during 2007-08. On RKVY, the effort of the State in precision farming was appreciated. The State has taken several initiatives for increasing agricultural production. While agricultural production is improving, the deficiency/ shortfall in pulses production needs attention.

b) Rural Development: The State Government should make all efforts to complete the physical & financial targets for the various schemes under Rural Development. Under NREGA, 30 districts have been covered and the State Govt. has fixed a wage rate of Rs.80.00. In Tamil Nadu, during 2007-08, 12.59,983 households have been provided employment, generating 645.25 lakh person days. 27,71,072 households have been provided employment (upto 05.02.2009) during 2008-09.

The housing programme of Bharat Nirman is implemented as a sub-set of IAY. The implementation of the scheme has been satisfactory & physical targets have been achieved. The target for 2007-08 and 2008-09 has been set at 21.27 lakh houses (allocation Rs. 4040 crore) and 27.96 lakh houses (allocation Rs. 5400 crore), respectively. The progress under SSA and Mid Day Meal Scheme are satisfactory.

c) SCSP/TSP: The Working Group on Social Justice & Tribal Affairs advised the State to prepare document for SCSP/TSP adhering to the guidelines of the SCSP/TSP for formulation, implementation and monitoring.

d) Power: The TNEB is responsible for generation, transmission & distribution of electricity in the State. In additional to its own generation, the State is getting power from private sector plants, its share from Central sector generating plants etc.

The SERC has been constituted and the first tariff award was done in March, 2003. It has been proposed to unbundle TNEB with 2 subordinate companies for (i) Transmission and for (ii) Generation & Distribution. The Working Group for Power Sector has indicated that separate companies may be set up for Generation & Distribution, respectively. The T&D losses are estimated at 18%. The feeder separation programme may be taken up and energy audit to assess the actual

- Quality seed distribution and promotion of Seed Village concept to produce quality seeds in farm holdings.
- Self Help Groups (SHGs) are also encouraged for seed production through suitable training besides Seed Village programme.
- Scientific cultivation by adoption of all technologies with drip fertigation through precision farming.
- Bringing every piece of cultivable land under cultivation and to bring considerable area of fallow lands under cultivation.
- Effective use of information and communication technology in agriculture for speedy transfer of information like technology, weather forecast, market trend and assistance extended to farmers through various government schemes.
- Agriculture Technology Management Agency scheme to be expanded to all districts of Tamil Nadu.

Irrigated Agriculture Modernization and Water Bodies Restoration and Management (IAMWARM)

Irrigated Agriculture Modernization and Water Bodies Restoration and Management (IAMWARM) Project in Tamil Nadu is being implemented with the assistance of World Bank over a period of six years (2007-08 to 2012-13) through Water Resources Organization (WRO) and Agriculture, Horticulture, Agricultural Engineering, Animal Husbandry and Fisheries Departments along with Tamil Nadu Agricultural University. During 2007-08, the project was implemented in 9 selected sub-basins under Phase-I programme. During 2008-09, the scheme is implemented additionally in 16 selected sub-basins under Phase-II programme. During 2009-2010 it is proposed to implement the project additionally in 38 sub-basins under Phase-III programme.

National Food Security Mission (NFSM)

Mission programme on rice is being implemented in Nagappattinam, Thiruvarur, Pudukkottai, Ramanathapuram and Sivagangai districts; and on pulses in Coimbatore, Cuddalore, Erode, Nagapattinam, Namakkal Thiruvallur, Thiruvarur, Thoothukudi, Thiruvannamalai, Vellore, Villupuram, and Virudhunagar districts. Working Group noted that the State has a shortfall of pulses and needs to increase the production.

Rashtriya Krishi Vikas Yojana (RKVY)

During 2007-08, Government of India released an amount of 153.60 crore including Rs.2.90 crore towards the preparation of District Agricultural Plan. During 2008-09, the allocation is Rs 140.38 crore of which Rs 70.19 crore has been releasd so far. For 2008-09 the schemes are proposed to be implemented in Erode, Tiruchy, Vellore, Thiruvannamalai, Cuddalore, Sivagangai, Virudhunagar, Theni, Thirunelveli as focus districts with an outlay of Rs.129.56 crore. Under National Agricultural Development Programme it is proposed to take up Precision Farming in 9400 hectares at a cost of Rs.4202 lakh. Agri-clinics will be established in 161 blocks at a cost of Rs.515.20 lakh. Dryland farming development activities will be implemented In 30 blocks at the rate of 150 hectares per block at a cost of Rs.515.15 lakh. Organic farming and organic manure production in 130 blocks at a cost of Rs.910 lakh. Quality seed production and distribution is proposed for Rs.1075.19 lakh. The agricultural mechanization has been proposed to be implemented at a cost of Rs.2579.55 lakh.

"ஏரினும் நன்றாம் எருஇடுதல் கட்டபின்
நீரினும் நன்றதன் காப்பு"

அன்னை பாரதத்தின் அழிப்பசியைத் தீர்ப்பதற்கு
அறிஞர்களும் ஆன்றோரும் அன்றாடம் சிந்தித்து
தமிழக வேளாண் செயலர் தனவேல் அவர்களின்
சீரிய சிந்தனையால் செயலாக்கம் தனைக்கண்டு
தரணியிலே சிறந்த தமிழக வேளாண் பல்கலையின்
துல்லியப்பண்ணை விரிவாக்க இயக்குனர் வடிவேலவரும்
கொடிவாழ தேர் ஈந்தான் பாரி மன்னன்
மயில்வாழ ஆடை தந்தான் வள்ளல் பேகன்
தமிழ் வாழ கனி தந்த அதியன் மன்னில்
பயிர்வாழ திட்டம் கண்டான் வடிவேலன்
துலித் துலியாய் நீரைக் கொண்ட தூயதிட்டம்
துல்லிய பண்ணைத் தீட்டம் கொண்டு வந்து
ஏழை உழவர் வாழ்வதினில் ஏற்றம்பெற
இதனை இதனால் இவன்முடிக்கும் என்றாய்ந்து
இரத்தினத்திற் சிறந்த முத்தொன்றை கண்டெடுத்து
அத்துறையின் பொறுப்பதனை அவரிடத்தே ஒப்படைத்து
சிந்தாமல் சிதராமல் சென்றடையச் செய்ததனால்
சிரிக்கின்றார் உழவர் மக்கள் சிந்தை மிகமகிழ

உழவர் வாழ்வதனில் உயர்வு காண
வழிகாட்டி வாழ்வளித்த வடிவேலனே முத்து வேலனே
எண்ணித் துணிந்தபின் எள்முனையும் சிதராமல்
திண்ணமுடன் செயலாற்றி திடமான வெற்றிகண்ட
இரண்டாம் பசுமைப் புரட்சிதனை எய்திட்ட
பல்கலையின் நல்முத்தே வேலவனின் வேல்முத்தே
வடிவேலவனின் வேல்முத்தே முத்து வேலவரே
நின் தொண்டால் பயன் பெற்றோம் - நிறை பலன்பெற்றோம்
நித்தம் நித்தம் நினை மறவோம் - நீவீர் நீடுழி வாழ
நெடு வேலவனை யாம் தொழுவோம்
வாழ்வீர் பல்லாண்டு வளங்கள் பல பெற்று
வாஞ்சையோடு வாழ்த்துகிறோம் வணங்குகிறோம்.

இவன்,
A.K.கோவிந்தன்,
அண்ணாமலையார் துல்லியப்பண்ணை விவசாயிகள் சங்கம்,
ஜருகு.

தருமபுரி மாவட்ட துல்லிய பண்ணை விவசாயிகளின் பாராட்டு சிறப்பிதழ்

"கல் தோன்றி மண் தோன்றா காலத்தே தோன்றிய மூத்த தமிழ்"

- இது நம் தமிழ் மொழிக்கு பெருமை

உலகில் எத்தனை தொழில்கள் இருந்தாலும் "உழுவார் உலகத்தார்க்கு ஆணி" மற்றும் "உழந்தும் உழவே தலை" என்னும் வள்ளுவன் கூற்றுபடி இவ்வுலகத்து உயிரினங்களின் பசி போக்கி காப்பதினால்

- இது உழவுத் தொழிலுக்கே பெருமை

வேளாண்மைத் தொழில் பல முனை நெருக்கடிகளினால் சிதைக்கப்பட்டு சீரழியப் போகும் நிலையில் துல்லிய பண்ணைத் திட்டத்தினை அறிமுகப்படுத்தி வெற்றி கண்டதினால்

- இது இந்திய துணைக்கண்டத்திலேயே தமிழ்நாட்டுக்கு பெருமை

கிடைத்த இத்திட்டத்தினை மிக சிறப்பாக செயல்படுத்தி அதில் வெற்றியும் கண்டதினால்

- இது தருமபுரி மாவட்டத்திற்கே பெருமை

இத்திட்டத்திற்கு உயிர், உடல் இரண்டையும் தந்து அதனை வெற்றித் திட்டமாக உருவாக்கியதால்

- இது தமிழ்நாடு வேளாண் பல்கலை கழகத்திற்கு பெருமை

இத்திட்டத்தினை செயல்படுத்த வேளாண்மை பல்கலைக் கழகத்திலிருந்து வடிவேலன் என்ற குருவையும், முத்துவேலன் என்ற சீடரையும் அனுப்பி வைத்து இதனை மிக சிறப்பாக செயலாக்கி, வெற்றித் திட்டமாக்கியதால்

- அண்மையில் நூற்றாண்டு விழா கொண்டாடி
பெருமையுடன் விளங்கும் வேளாண்மை
பல்கலைக்கழகம் மீண்டும் மீண்டும் பெருமையடைகிறது.

ஒரு பல்கலைக்கழகமே உழவன் வீட்டு கதவைத் தட்டி தமது ஆராய்ச்சிகளையும், கண்டுபிடிப்புகளையும் செயல்படுத்தியதோடு நில்லாமல் மூன்றாண்டு காலம் அவர்களுடனேயே வாழ்ந்து வெற்றி கண்ட விந்தையால்

- நம் தமிழ் கலாச்சாரம் பெருமையடைகிறது

சுட்ட பழம் வேண்டுமா சுடாத பழம் வேண்டுமா என்று தமிழ் மூதாட்டி ஔவைக்கே அறிவு புகட்டினான் அன்றைய வடிவேலன். அதே தகடூர் மண்ணில் நம் வாழ்வில் ஒளி வீச தொழிலில் ஏற்றம் கண்டிட நமக்கெல்லாம் புது வாழ்வு கொடுத்த வடிவேலனின் மறு அவதாரமாகிய இயக்குனர் டாக்டர். வடிவேல் அவர்களால்

- இத்திட்டம் பெருமையடைந்தது.

பல்கலைக் கழகம் என்னும் சிப்பிக்குள் வடிவேலன் கண்டெடுத்த நல் முத்தாம் டாக்டர்.முத்துவேல் அவர்களின் சீரிய பணியால்

-மேற்கண்ட அனைவருமே பெருமையடைந்துள்ளோம்.

எங்களுக்காக உங்கள் சீரிய பணி தொடரவும் நீண்ட நெடுங்காலம் நீவீர் வாழிய பல்லாண்டு ! பல்லாண்டு ! என நெஞ்சம் நிறைந்த வாழ்த்துக்களையும், இதயம் கனிந்த நன்றிகளையும் நாங்கள் பெருமையுடன் சமர்பிக்கின்றோம்.

இவண்,

மகாத்மா காந்தி துல்லிய பண்ணை விவசாயிகள் சங்கம்,
பாப்பிரெட்டிப்பட்டி.

முத்தமிழ் ஆப்செட், பாப்பிரெட்டிப்பட்டி செல்: 94438 90900

Makkal TV : MalarumBoomi 30 minutes programme

BBC Thamizhosai London : Two hrs and thirty minutes

E Tv: Andrapradesh : one hour programme

Thanks