

## GFCL in the Service of Farmers

Inorganic fertilisers have played an important role in improving agricultural productivity over the last 40 years. The domestic fertiliser industry has risen to the occasion, set up manufacturing facilities with huge capital outlay towards attaining self-sufficiency in fertiliser production and made available the fertilisers to the Indian farmer. However, there is need to further improve farm productivity and intensify agricultural operations through increased consumption of fertilisers to attain higher growth rate of agricultural sector. The paper illustrates various development activities undertaken by Godavari Fertilisers and Chemicals Ltd. which are aimed at guiding the farmers to improve their farm productivity and prosperity.

### G. RAVI PRASAD

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**N**ITROGEN (N), PHOSPHORUS (P) AND Potash (K) are the three primary plant nutrients essential for growth and development of all plants which are supplied through fertilisers. There are other secondary and micronutrients like Sulphur, Calcium, Magnesium and Zinc, etc, which help in the healthy growth of the plants and improve crop yield. The consumption of primary plant nutrients (N+P+K) in India increased from 69.8 thousand tonnes in 1950-51 to 18.4 million in 2004-05. The per hectare consumption of nutrients rose from half-kg/ha in 1950-51 to over 90 kg/ha in 2004-05. Thus there is a close and inseparable relationship between fertilisers and agriculture.

During the first three years of the 10<sup>th</sup> Plan, the growth in GDP has been around 6.5%, but the agricultural sector grew by less than 1.2%. In order to improve the standards of living and the quality of life of the rural population, which still constitutes about 60% of the total population, there is need to increase the growth rate in agricultural sector to a level of about 4%. This requires fresh initiatives and huge investments to achieve an average growth of this magnitude.

Fertiliser industry has made a significant contribution in transfer of improved farm technology.

### COMPANY PROFILE

#### Background

Godavari Fertilisers and Chemicals Limited was established in 1981 as a joint venture between Government of Andhra Pradesh and Indian Farmers Fertiliser Cooperative Limited (IFFCO) to set up a DAP manufacturing facility at Kakinada, on the east coast. The plant was

commissioned in 1988 with an initial capacity of 3 lakh tonnes with a capital outlay of Rs.114 crores. The capacity has been increased to 8.32 lakh tonnes over a period of time. The plant and the green belt is spread over an area of 700 acres.

#### Mission

To enhance the prosperity of farmers through supply of quality farm inputs and related services to ensure value for money.

#### Technology

GFCL has adopted the Slurry Granulation Technology from Tennessee Valley, USA and the two train plant is one of the most sophisticated plants in the country. The plant and storage facilities were designed and built by some of the best-known names in the fertiliser field viz., Hindustan Dorr Oliver Ltd., Toyo Engineering India Ltd and Hitachi Zossen Ltd of Japan.

#### Raw Materials

Initially the raw materials required for manufacture of DAP viz., phosphoric acid and ammonia, were imported through Visakhapatnam Port and for this purpose GFCL has a storage terminal at Visakhapatnam Port. The raw materials are then transported to Kakinada by rail wagons. Subsequently with the commissioning of Kakinada Deep Water Port, GFCL has started receiving the materials through Kakinada Port and transport it to the plant through pipelines laid by GFCL for this purpose. The total storage capacity is 46,000 mts.

#### Concern for Environment

GFCL has always shown concern for environment. Its sophisticated produc-

tion methods ensure that the plant is a zero liquid effluent one. State-of-the-art controls are in place inside the plant and even minor amounts of emissions like dust and ammonia in the ventage gas washed out through a series of scrubbers. The tail gas scrubber system further reduce emission much below the prescribed limits of the pollution control board. 350,000 trees were planted in an area of 700 acres of land around the plant for developing green belt which provides environmental protection in the area.

#### Marketing Network

The company's marketing operations are spread over nine states viz., Andhra Pradesh, Maharashtra, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Bihar, West Bengal, Karnataka and Tamil Nadu with Regional Marketing Offices located at Kakinada, Vijayawada, Kurnool, Hyderabad (all in AP), Nagpur, Bhopal, Raipur, Lucknow and Raichur. The company has a Liaison office at New Delhi for necessary follow up with the Government of India.

GFCL started its marketing operations from Kharif 1985 to popularise DAP. The company's brand name 'Godavari' has become a household name in its primary marketing zone of Andhra Pradesh. The company is the market leader for DAP in the state of Andhra Pradesh with a market share exceeding 68%. The company enjoys an All India market share of 11% for DAP. The company manufactures NP and NPK fertiliser products viz., Di-ammonium phosphate (18:46), 14:35:14, 12:32:16, 10:26:26, 20:20:0:15, etc. The company also markets other nitrogenous, phosphatic and micronutrient fertilisers

like urea, imported MOP, zinc sulphate, sulphur, water soluble fertilisers. The company markets its products through a wide network of over 4,000 retail dealers

in addition to institutional sales. The company organises farmer education programmes, field demonstrations for the benefit of farming community.

Government of Andhra Pradesh divested its stake (25.88%) in the company to Coromandel Fertilisers Limited (CFL), a Murugappa group company, through open bid process on 12 July 2003. Subsequently CFL made an open offer to the public and acquired 14.94%. Currently CFL holds 45% of equity. IFFCO holds 25% and foreign shareholders Fosker of South Africa and GCT of Tunisia hold 5% each and general public 20%.

### The Motto

GFCL is imbued with the ideal of universal welfare and the farm prosperity. These ideals are reflected in various facets of the company. GFCL's motto is 'Service to the Farmer'.

### PROGRAMMES UNDERTAKEN

#### Crop Demonstrations

Crop demonstrations are organised to highlight the role of N, P & K plant nutrients in crop production. Also they are aimed at balanced use of plant nutrients. It is also stressed to practice Integrated Plant Nutrients Management through application of FYM, biofertilisers, micronturients and water management techniques.

#### Squad Programme

The main focus of squad programme is As part of disinvestments process, the

Production and sales of GFCL since inception				
S.N.	Year	Product	Production	Sale
1	1986-87		0	57562
2	1987-88		0	72843
3	1988-89	DAP	173027	161429
4	1989-90	DAP	173349	171642
5	1990-91	DAP	243147	245968
6	1991-92	DAP	342720	276076
7	1992-93	DAP	345436	369396
8	1993-94	DAP	222813	220755
9	1994-95	DAP	340171	304769
10	1995-96	DAP; 20:20:0	340326	322160
11	1996-97	DAP; 20:20:0	385105	397565
12	1997-98	DAP; 20:20:0	533697	608984
13	1998-99	DAP; 20:20:0	640170	632301
14	1999-2000	DAP; 20:20:0	701120	631468
15	2000-01	DAP; 20:20:0	769500	797543
16	2001-02	DAP; 20:20:0	667402	698130
17	2002-03	DAP; 20:20:0; 17:17:17; 14:35:14; 10:26:26	743151	670630
18	2003-04	DAP; 20:20:0; 17:17:17; 14:35:14; 10:26:26	806807	675287
19	2004-05	DAP; 14:35:14; 10:26:26; 12:32:16	888447	870236

Farmer education programmes		
S.N.	Programme	Period started
1	Cluster demonstrations/ crop demonstrations	1985
2	Village adoption	1991
3	I.T.D.A	1988
4	Farmer service centres	1992
5	Soil testing	1987
6	Squad programmes	1986
7	Farmer seminars	1986
8	Agri officers programmes	1986
9	Cooperative programmes	1986
10	Agri exhibitions	1986
11	Dealer meetings	1985
12	Sponsored programmes	1986
13	Field asst programmes	1986
14	Dealer shop decoration	1986
15	A V van programmes	1986
16	Wall painting	1986
17	Slides screening	1986
18	Wall postering, metal plating & stencilling	1986
19	Folk arts	1986
20	Sulphur analysis	2005
21	Self help groups	2005
22	Rural girl child education assistance programme	2005
23	Sulphur maps	2005
24	Farmer plant visits	2004-05

The company has recorded a total sales turnover of 8.7 lakh tonnes of all fertilisers during the year 2004-05.

#### Change in Management

State-wise Market Development Infrastructure		
S.N.	Region	Market development infrastructure
1	Andhra Pradesh	Crop demonstrations, Squad programme, Farmer seminar, Agri officers programme, Coop programme, Agri exhibitions, Dealer meetings, Sponsored programmes, Field asst programmes; Stencilling, Folk arts, Soil and sulphur analysis, Rural girl child education programmes; District level farmer conventions, Sulphur maps
2	Madhya Pradesh	Crop demonstrations, Squad programme, Farmer seminar, Agri officers programme, Coop programme, Agri exhibitions, Dealer meetings, Sponsored programmes, Field asst programmes; Stencilling, Folk arts, Soil analysis, District level farmer conventions
3	Uttar Pradesh	
4	Maharashtra	
5	Raichur	



Crop demonstration

to generate consumption of fertilisers positioned in the market. The programme begins 7-10 days before the commencement of season and continue till application of complex fertilisers concludes. The scheme is implemented in the potential villages around a market. A squad comprising professionally qualified sales officer and field assistants visit the villages (programme centres) with PA system and other publicity material. The crop and product literature is distributed to the farmers and also to the opinion leaders in the village. Sales officers attend the queries and doubts of the farmers on usage of fertilisers. The squad spends time in the afternoon with the farmers in the market yards/weekly fairs/*jaataras* to cover more number of farmers.

### Farmers Seminar

The objective is to generate goodwill of the farmers and agri extension agency

towards a company and its brand. While the farmer seminars can be organized any time, they are preferred when the farmers are facing crop management problems. The villages for implementation of Farmer Seminars are selected where area specific problems exist. The programmes are initiated to get the problems of the farmers addressed by panel of experts drawn from local agricultural research stations. Company banners and other display material is used in a limited way as the seminar focus is to address the crop management problems of the farmers. agricultural department officials as well as agricultural scientists are invited in a big way to involve in the issues. Farm Radio Officer of local AIR is also invited to participate in the seminar.

### Agricultural Officers' Programme

To generate goodwill of Agricultural Officers, these programmes are



Farmers seminar

implemented in the office of the JDA/ADAs during their monthly meeting or Zonal Research and Extension Advisory Council Meetings. Product literature is distributed and the company's Regional Manager explains the product specifications, its application and usage etc.

### Cooperative Programme

The programme is implemented in the offices of Marketing Federation/District Cooperative Marketing Society/Primary Cooperative Marketing Society with a request to the officials to participate in the programme. The objective is to generate goodwill of cooperative secretaries/business managers/member-farmers. The regional manager/sales officers explain the company's product and crop literature is distributed during the meetings. In order to meet large number of member-farmers along with cooperative officials, the cooperative programme is implemented during the AGM of a society.

### Exhibition

To popularize company's brand and its fertiliser products amongst the farming community, stalls are set up during the exhibitions held on the annual day of agricultural research station, kisan mela, festival days, farmers day etc. The exhibition stall is well decorated with welcome banners, inflatables, dangles, buntings, posters, panels etc. The stall is manned by sales officers to explain the company's operations and products. Product bags are exhibited in the stall and product literature is distributed to the visitors. In the evenings, film-shows are conducted before the stall.

### Dealer Meetings

These meetings play an important role to build and develop positive trade relations with the dealers. The dealer meetings are held once in a season at the headquarters of the company's regional offices or at a place convenient to the dealers. The dealer meets are held in a planned way with printed invitations/phone invitations to all the dealers. Senior officers from



the corporate office are usually participated in the dealer meets to answer the questions that are likely to be raised by the dealers on the company's performance, terms and supply of company products etc. Whenever situation permits, senior officials from the agriculture department/agriculture research stations/agricultural universities are invited for the dealer meets.

### **Sponsored Programmes**

To encourage, cattle development competitions are organised in villages through bullock cart race, cattle show etc. To generate goodwill of agriculture department/district administration/cooperative institutions, the sponsored programmes are organised. Also, to encourage rural sports, namely, *Kabaddi*, *kho-kho* competitions are held annually. The ideal events which the company sponsor includes cattle race, cattle show, rural sports etc. where the farmers participate in a big way. After drawing a list of rural events that occur in the region, a crowd pulling major event is selected for sponsored programme. Leaflets relevant to the event are printed and distributed. Product banners and special banners are displayed. Prizes are organized by the company to the winners which are given away by a VIP. Company conducts squad programme 2-3 days before the event is held.

### **Field Assistant Programmes**

The objective is to promote consumption of company's fertiliser products through field canvassing to farmers in the villages. The programme begins two weeks before the commencement of crop season and continue at least for 3 months in a given area. Since the objective is product promotion, the programmes are implemented in areas where the popularity is low. Agricultural graduates/agri-polytechnic candidates are specially employed, given field training and placed in select markets. They are provided with product literature and publicity material/leaflets etc. The area of operation is confined to the villages that fall under the

allotted market so that effective time is spent in the villages with farmers. These field assistants are also participate in the squad programmes and exhibitions organised by the company.

### **Audio-Visual Van Programmes**

To create demand and consumption of fertilisers, AV van programmes are conducted by meeting farmers in the villages throughout the year. Professionally qualified marketing officers are entrusted with the responsibility of organising AV van programmes. Latest films on soil testing; seeds; irrigation and water conservation methods; crop management - usage of nitrogen, phosphorus and potash and importance of balanced use of N, P and K fertilisers, Pest management; importance of micro-nutrients; new products/innovations, etc are exhibited through AV vans to disseminate latest technology in respective fields for the benefit of the farmers. Product literature and other leaflets are distributed amongst the farmers.

### **Folk-Arts**

The objective is to inform the farming community, the role of major plant nutrients in crop production. The programme begins 7-10 days before the commencement of season and continue till application of DAP and other NPK fertilisers concludes. The potential villages will be of with at least 100 farming households. The folk-art can be *burrakatha*, *oggukatha*, *kathputlee*, magic show, etc., all in the regional language. Suitable script with all critical and normal messages to be communicated to the farmers would be prepared much ahead of the programme and after its clearance by the market development team, the programme is implemented. The folk-art crew comprises three experienced artists in this field, visits the village in the evening, obtain oral permission from the village head and distribute pamphlets before commencing the programme which lasts for about 90 minutes. The company's product

literature is distributed at the end of the programme.

## **ONGOING PROGRAMMES**

### **Soil Analysis**

Soil is farmers' most important resource. It is the medium which supports growth of all crop plants. It provides mechanical foothold and nutrients for the crop growth. Soil capacity to supply adequate plant nutrients for good crop growth is known as soil fertility. Efficient management of soil is the most important factor in maintaining nutrient supplying capacity of the soil. Good management of the soil and fertiliser and proper crop rotation results in maintaining soil fertility at higher level which in turn can result in better and economic use of applied fertilisers.

GFCL's ongoing programmes includes soil analysis under its farmer advisory services. Soil samples are collected and tested at the company's factory at Kakinada for N, P and K and other important micronutrients like zinc and sulphur and the results are provided to the farmers for obtaining higher yields.

GFCL associated in the government programme of 'Soil Testing Campaign' during June 2005. Under this campaign, aimed to educate farmers about technological changes and for improving crop output, 10 soil samples from each village have been collected for soil analysis and the results have been provided to the farmers. GFCL volunteered and assisted the government by analyzing some of the samples at its factory, Kakinada.

### **Self-help Groups (Velugu Project)**

In order to eliminate poverty from rural areas, Government of Andhra Pradesh has promoted the self-help group scheme wherein women members (beneficiaries) get revolving fund at 0% of interest and equal amount of financial assistance from the banks at a very normal rate of interest. These groups will be trained in modern agricultural practices to reap rich harvest. In order to provide quality inputs at reasonable prices at the door steps of



**గోదావరి**

**రైతు చిరునామా**

పేరు : A. రామేశ్వరయ్య

తండ్రి పేరు : వెంకటేశ్వరయ్య

గ్రామము : వెంకటంపల్లి

మండలము : పల్నాటి

జిల్లా : కర్నూలు

పైరు వినియోగి - రైతు రాబడికి వాడండి గోదావరి ఎరువులు

నెలవారీ సంతకం చేయవలసిన చిరునామా :

గోదావరి ఫర్టిలైజర్స్ అండ్ కెమికల్స్ లిమిటెడ్, ఎల్.ఎ.సి. కాలనీ, కర్నూలు. ఫోన్ : 94405 78504

**గోదావరి**

**భూసార పరీక్ష ఫలితాలు - సిఫారసు చేయబడిన ఎరువులు**

మీ మట్టి వర్షానా పరీక్ష ఫలితాల ఆధారంగా ఈ క్రింది ఎరువులను సిఫారసు చేయబడినది.

వంట : వేరుశనగ

గోదావరి డి.ఎ.సి.	యూరియ	పొటాష్	సీంట్రియ ఎరువులు (టన్నులు)
50	20	30	5.00

లేదా

గోదావరి 14:35:14	యూరియ	పొటాష్	సీంట్రియ ఎరువులు (టన్నులు)
50	25	-	5.00

లేదా

గోదావరి 10:26:26	యూరియ	పొటాష్	సీంట్రియ ఎరువులు (టన్నులు)
50	20	-	5.00

పెరుగు వరి బిడ్డలు - పెరుగుదలకు చక్కలు గోదావరి ఎరువులు

Soil testing campaign

the beneficiaries, GFCL took the lead in appointing them as our valued customers through which basic essential agri-inputs such as DAP and other complex fertilisers are being supplied to nearly 704 (KNL) help groups.

Subsequently, GFCL also organised field day and farmer seminar in villages with the help of agricultural scientists and agricultural officers. Many of the beneficiary lady farmers appreciated the initiative and service rendered by GFCL and now they are showing much more inclination to continue this techno-commercial activity with GFCL.

This year, GFCL is planning to serve nearly 600 groups and we are also planning to take up demonstrations mainly on castor with our *Tejas* (10:26:26) which is a highly suitable fertiliser for oilseed crops.

GFCL is also planning to organize veterinary camps in coordination with self-help groups.

### Rural Girl Child Education Assistance Programme

As part of corporate social responsibility and in recognition of strong support received from the farmers of Andhra Pradesh and to help the girl child in its quest for education in rural areas, GFCL has, for the first time in the country, successfully launched a pioneering project 'Rural girl child education assistance programme' in April 2005.

The project has initially been

introduced in six districts of Andhra Pradesh viz., Anantapur, Guntur, Krishna, Nizamabad, East Godavari and West Godavari. A total of 600 girl students have been selected as beneficiaries from 300 schools, at the rate of two students each from 50 schools in each district. Girls who have top-scored in their class IX exams and are on the threshold of entering class X, have been chosen for the awards. An amount of Rs.3000/- is disbursed to the girls for their books, uniforms, fees and other educational needs in three



Field day and farmer seminar





Girl child education programme

instalments of Rs.1000/- each in July, August 15 and January 26<sup>th</sup>.

This novel project has drawn widespread praise from various national and regional newspapers, politicians, government officials and social activists. Enthused with excellent encouragement, the company proposes to continue this programme and cover all the districts of Andhra Pradesh in near future.

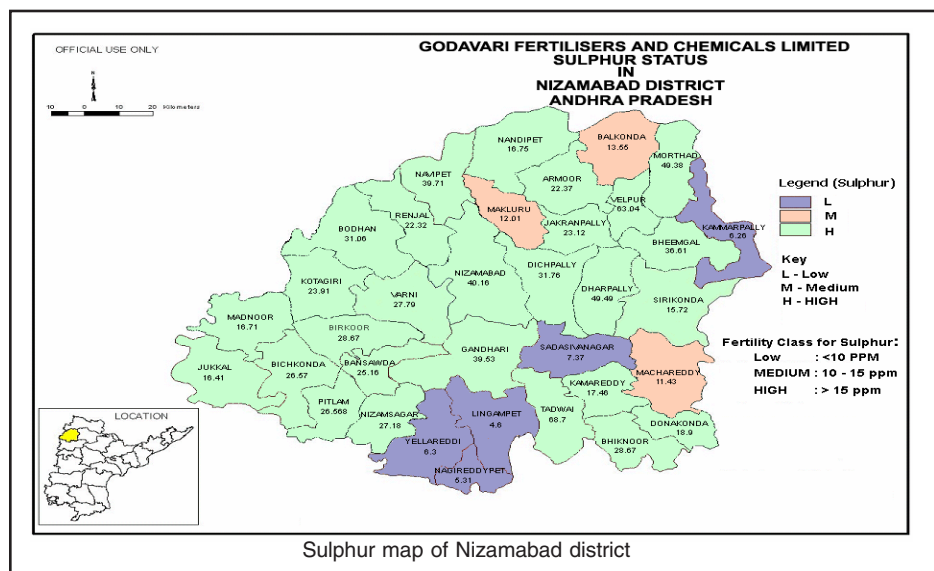
#### DISTRICT LEVEL FARMER CONVENTIONS (RYTHU SADASSU)

GFCL PARTICIPATED AND SET UP exhibition stalls, distributed product and crop leaflets to the farmers during the District Level Farmer Conventions (Rythu Sadassu), organised by the Government of Andhra Pradesh during

May and June 2005, in every district of the state. The marketing personnel explained the farmers who visited the stall, of the latest developments in the technology changes, the importance of balanced use of fertilisers, growing usage of micronutrients for obtaining higher yields.

#### Sulphur Map

To reduce the fertiliser cost by using 20:20:0 by farmers where sulphur is excess and medium in soils. Use of right fertilisers with low cost of nutrients – sulphur maps exhibited in all JDA, ADA and AO offices to educate the farmer. So far, 7 districts in AP, viz., West Godavari, East Godavari, Krishna, Guntur, Kurnool, Nizamabad and Medai were exhibited in the concerned JDA, ADA & AO offices.



Sulphur map of Nizamabad district

#### Project 'P'

Increased usage of phosphorus through DAP is the objective of this programme. Farmers tend to use excessive quantities of nitrogen, inviting pests and subsequently suffering from pest and disease attack. Project 'P' is focused on educating farmers about balanced usage of fertilisers, and also the economics of 'P' through DAP. Mobile agricultural graduates supervise agricultural demonstrations in a radius of 10 km and intensively meet and educate farmers in such villages. At the beginning of every year districts are chosen to conduct project 'P' which is renewed monthly.

#### SUGGESTIONS AND FUTURE STRATEGY

TO INCREASE THE PRODUCTIVITY OF BOTH land and rural labour, there is a need to initiate steps for a fresh round of land reforms, concentrating mainly on consolidation of holdings. Productivity of various crops has to be improved. Quality seeds and hybrid seeds to be made available; a system of crop rotation to be introduced to avoid deterioration of the quality of soil and incidence of pests. Balanced and integrated use of fertilisers; crop protection (pesticides) management with proper farming techniques to be promoted/monitored. Promotion of organic farming to maintain long term fertility of soils

#### Farmer Activity

Electronic diagnosis of micronutrient deficiency symptoms have to be put in places like dealer shops, agricultural market yards, etc. State governments must supply micronutrients like zinc at 50% subsidy to enable extensive usage by farmers. Output prices must be made available regularly to farmers, so that they can decide to whom they can sell and when.

Last but not the least usage of organic manure, green manure, biofertilisers, etc., must be promoted by fertiliser companies to protect the soil structure, so that our future generations reap the benefits.