



RALLIS

A **TATA** Enterprise



51st Annual Report

1998-99



RALLIS A TATA Enterprise

Fifty-first annual report 1998-99

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Rallis India Limited

RALLIS INDIA LIMITED

D. S. Seth *Chairman Emeritus*

BOARD OF DIRECTORS

F. A. Mehta *Chairman*

Ram S. Tarneja

V. N. Nadkarni

J. K. Setna

Russi Jal Taraporevala

R. K. Krishna Kumar

M. K. Vadgama

R. Gopalakrishnan

K. N. Bhandari *Nominee Director*

V. Rai *Managing Director*

REGISTERED OFFICE

Ralli House,
21, Damodardas Sukhadvala Marg,
Mumbai 400 001.
Website: www.rallis.co.in

AUDITORS

Lovelock & Lewes

SOLICITORS & ADVOCATES

Crawford Bayley & Company

SHARE REGISTRARS AND TRANSFER AGENTS

Tata Share Registry Ltd.
Army & Navy Building
148, M. G. Road
Mumbai 400 001.
Tel. No.: 287 3831
Fax No.: 284 4160
Website: www.tata.com/tsrl

BANKERS

State Bank of India
Union Bank of India
Deutsche Bank
Citibank N.A.
Credit Agricole Indosuez
Corporation Bank
Banque Nationale de Paris
American Express Bank Ltd.
HDFC Bank Limited

MANAGEMENT TEAM

V. Rai	Managing Director
Shirin V. Balsara	Director – Legal & Company Secretary
S. W. Sawant	Director - Agrochemicals
A. K. Jain	Executive Vice President - Technical
U. M. Lad	Executive Vice President - Finance
B. S. Uberoi	Executive Vice President – Personnel & Administration
J. J. Aga	Vice President - Finance
K. Dorairaj	Vice President - Fertilisers
P. N. Karlekar	Vice President - Manufacturing
S.K. Mandrekar	Vice President - Pharmaceuticals
M. S. Mithyantha	Vice President - Research & Development
A. K. Shetty	Vice President - Pesticides
S. V. Sohoni	Vice President – Agri. Business
R. Venugopal	Vice President - Commercial
D.M. Bhavsar	General Manager – Manufacturing
N.V. Bhide	General Manager – Corp. Development
M.M. Borhade	General Manager – Seeds
V.S. Datar	General Manager – Infotech
R.S. Deshpande	General Manager – Quality Assurance
S.P. Giri	General Manager – Pesticides Distribution & Technical Sales
G.R. Goves	General Manager – North
R.A. Makawana	General Manager – Formulations
Anil Mehta	General Manager – Exports
P.R. Mundkar	General Manager – Materials
A.J. Pereira	General Manager – Production
B. Siva Prasad	General Manager – South
Birja Shankar	General Manager – Research & Development
T.P. Suresh	General Manager – Regulatory Affairs

STOCK EXCHANGES WHERE COMPANY'S SECURITIES ARE LISTED

The Stock Exchange, Mumbai
Phiroza Jejeebhoy Towers
Dalal Street
Mumbai-400 001.

National Stock Exchange
of India Ltd.
Trade World
Senapati Bapat Marg
Lower Parel
Mumbai 400 013.

The Calcutta Stock
Exchange Association Ltd.
7, Lyons Range
Calcutta 700 001.

The Madras Stock
Exchange Ltd.
Post Box 183
11, Second Line Beach
Chennai 600 001.

RALLIS INDIA LIMITED

NOTICE OF MEETING

NOTICE is hereby given that the 51st Annual General Meeting of the Company will be held at Bombay House Auditorium, Homi Mody Street, Mumbai 400 023, on Friday, the 20th August, 1999 at 4.00 p.m. to transact the following business :

1. To consider and adopt the audited Profit and Loss Account for the year ended 31st March, 1999 and the Balance Sheet as at that date and the Reports of the Directors and Auditors.
2. To declare a dividend.
3. To appoint a Director in place of Dr. F. A. Mehta who retires by rotation and is eligible for re-appointment.
4. To appoint a Director in place of Dr. Ram S. Tarneja who retires by rotation and is eligible for re-appointment.
5. To appoint a Director in place of Mr. V. N. Nadkarni who retires by rotation and is eligible for re-appointment.
6. To appoint Auditors and to fix their remuneration.
7. **Appointment of Mr. R. Gopalakrishnan as a Director**
To appoint a Director in the place of Mr. R. Gopalakrishnan who was appointed an Additional Director of the Company by the Board of Directors with effect from 28th June, 1999 and who holds office upto the date of this Annual General Meeting under Section 260 of the Companies Act, 1956 and Article 116 of the Articles of Association of the Company, but who is eligible for appointment and in respect of whom the Company has received a notice in writing under Section 257 of the Act from a shareholder proposing his candidature for the office of Director.
8. **Amendment to the Articles of Association of the Company**
To consider and, if thought fit, to pass with or without modifications, the following Resolution as a Special Resolution :
"**RESOLVED THAT** pursuant to the provisions of Section 31 and other applicable provisions, if any, of the Companies Act, 1956, Article 177 of the Articles of Association of the Company be and is hereby deleted."
9. **Voluntary delisting of the Company's Securities from the Stock Exchanges at Calcutta and Madras**
To consider and, if thought fit, to pass with or without modifications, the following Resolution as a Special Resolution :
"**RESOLVED THAT** subject to the provisions of the Companies Act, 1956, (including any statutory modification(s) or re-enactment thereof for the time being in force and as may be enacted hereinafter) and subject to such approvals, permissions and sanctions, as may be necessary and subject to such conditions and modifications as may be prescribed or imposed while granting such approvals, permissions and sanctions, which may be agreed to, by the Board of Directors of the Company (hereinafter referred to as "the Board", which term shall be deemed to include any Committee thereof for the time being exercising the powers conferred on the Board by this Resolution), consent is hereby accorded to the Board to delist its Ordinary Shares and all other securities from The Calcutta Stock Exchange Association Limited and The Madras Stock Exchange Limited."

Notes :

1. The Register of Members and the Share Transfer Books of the Company will be closed from Tuesday, 27th July, 1999 to Friday, 20th August, 1999 (both days inclusive). Dividend Warrants in respect of the Dividend that may be declared at this Meeting will be dispatched on or after 21st August, 1999.
2. Notice of change of address and mandates must reach the Company's Share Registrars and Transfer Agents, Tata Share Registry Ltd., Army & Navy Building, 148, M. G. Road, Mumbai 400 001 on or before 27th July, 1999.
3. The Explanatory Statement pursuant to Section 173 of the Companies Act, 1956 in respect of the business under Item Nos.7 to 9 is annexed hereto.
4. **A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE IN HIS STEAD AND A PROXY NEED NOT BE A MEMBER OF THE COMPANY.**
5. As per the provisions of the amended Companies Act, 1956, facility for making nominations is now available for shareholders, debentureholders and fixed deposit holders in respect of the shares, debentures and deposits held by them. Nomination forms can be obtained from the Share Registrars of the Company.

By Order of the Board of Directors
SHIRIN V. BALSARA
Director - Legal & Company Secretary

Registered Office :

Ralli House,
21, Damodardas Sukhadvala Marg,
Mumbai 400 001.

Dated : 30th June, 1999.

EXPLANATORY STATEMENT PURSUANT TO SECTION 173 OF THE COMPANIES ACT, 1956

Pursuant to Section 173 of the Companies Act, 1956 and in explanation of Item Nos. 7 to 9 of the business set out in the attached Notice of the Annual General Meeting, the following facts are stated :

Item No.7 :

Mr. R. Gopalakrishnan was appointed an Additional Director of the Company pursuant to Article 116 of the Articles of Association of the Company. As such, Mr. R. Gopalakrishnan holds office as Director upto the date of this Annual General Meeting and is eligible for appointment. A notice under Section 257 of the Companies Act, 1956 has been received from a Member indicating his intention to propose Mr. R. Gopalakrishnan for the office of Director at the forthcoming Annual General Meeting.

Mr. R. Gopalakrishnan graduated in Physics from the Calcutta University and from I.I.T. Kharagpur. He is an Executive Director of Tata Sons Limited besides being on the Board of Tata Chemicals Limited, Tata Electric Companies and Tata Engineering and Locomotive Company Limited. Before joining the House of Tatas in 1998, Mr. Gopalakrishnan was the Vice Chairman of Hindustan Lever Limited and was also on its Managing Committee and has wide and varied experience in leading business enterprises. The Board considers it desirable to continue to receive the benefit of his advice and guidance and therefore commends his appointment.

Item No.8 :

Article 177 of the Articles of Association of the Company, which the Company proposes to delete, may curtail the purpose for which the profits from the sale of an asset of the Company can be utilised. Through this deletion, the Company seeks more flexibility in the manner in which the profits of the Company can be utilised.

A copy of the Articles of Association of the Company together with the proposed amendment is available for inspection by the members at the Registered Office of the Company between the hours of 10.00 a.m. and 12.00 noon on any working day of the Company.

Item No.9 :

Presently the Company's securities are listed on The Stock Exchange, Mumbai, The National Stock Exchange of India Limited, The Calcutta Stock Exchange Association Limited and the Madras Stock Exchange Limited.

With the networking of centres of the Stock Exchange, Mumbai and the National Stock Exchange of India Limited, the members of the Company have access to online dealings in the Company's securities across the country. A very small number of members are located in the regions where The Calcutta Stock Exchange Association Limited and The Madras Stock Exchange Limited are situated and trading volumes on the said Stock Exchanges in the Company's securities is negligible. The proposed delisting of the Company's securities on these Exchanges will not, therefore, adversely affect any investor including the members located in the regions where the said Stock Exchanges are situated.

Stock Exchanges in India with the permission of SEBI are now free to fix the prescribed listing fees unilaterally and it has been observed that the listing fees paid to the said two Stock Exchanges are disproportionately higher and trading volumes are extremely low compared to the major Stock Exchanges.

As a part of its cost reduction measures, the Company has proposed delisting of its securities from the said two Stock Exchanges and in line with the SEBI regulations for voluntary delisting of the Company's securities by the Company, members' approval is sought by a Special Resolution for delisting its securities from the said two Stock Exchanges as set out in Resolution No.9. The proposed delisting is in the interest of the Company and the Board commends the Resolution for acceptance by the members.

By Order of the Board of Directors
SHIRIN V. BALSARA
Director - Legal & Company Secretary

Registered Office :

Ralli House,
21, Damodardas Sukhadvala Marg,
Mumbai 400 001.

Dated : 30th June, 1999.

RALLIS INDIA LIMITED

DIRECTORS' REPORT TO THE MEMBERS OF RALLIS INDIA LIMITED

FINANCIAL RESULTS

	1998-99 Rs. lacs	1997-98 Rs. lacs
Sales	12,56,19.04	12,06,11.99
Other Income	15,17.34	11,09.52
INCOME	12,71,36.38	12,17,21.51
Profit for the year before charging interest, VRS, etc. and depreciation	96,99.74	83,52.97
Interest	49,11.75	41,39.55
	<u>47,87.99</u>	<u>42,13.42</u>
VRS, etc.	3,46.72	3,93.28
Depreciation	12,25.56	10,97.05
Profit before tax	<u>32,15.71</u>	<u>27,23.09</u>
Provision for tax	4,75.00	4,20.00
Profit after tax	<u>27,40.71</u>	<u>23,03.09</u>
Profit brought forward from previous year	9,84.57	7,99.92
	<u>37,25.28</u>	<u>31,03.01</u>

DIVIDEND

The Directors are pleased to recommend a dividend of 60%.

An interim dividend of 11% was paid on 31st March, 1999 to the holders of the 11% Cumulative Redeemable Preference Shares of Rs.10/- each, allotted on 20th February, 1999, pro-rata from the date of allotment. No final dividend for the year is payable to them.

Dividend of 14% was also paid to the holders of the 14% Cumulative Redeemable Preference Shares of Rs.10/- each, on their redemption.

OPERATIONS

The sales were slightly higher than last year. The Rs.75 crore drop in sales of fertilisers was compensated by a similar increase in the sales of pesticides. The profit before tax at Rs.32.16 crores was higher than last year by 20%, despite the increase in interest charges of nearly Rs.8 crores.

The Company, during the year, acquired the Agro business of Voltas in India. This helped the Company to consolidate its position in the organo phosphates area and also establish a link with Rhone Poulenc, the long term partners of Voltas' Agro. The Company also acquired shares in two international operations involved in Agrochemicals and Pharmaceuticals. These strategic shareholdings helped the Company to broaden its exports by expanding into the markets of South America and Southern Africa.

Pesticides: There was a reduction in the prices of commonly produced generic pesticides which are also made by several other manufacturers. The Company was, however, able to maintain its profitability by increasing sales of premium products which the Company had introduced in the previous two years. The largest increase, as expected, came from exports; at Rs.87 crores, it was 20% higher than the previous year. Apart from the increased offtake from the recently acquired international units, exports of new products, specifically produced for special customers, helped to achieve the higher volume.

Fertilisers: Sales of fertilisers were lower by 8%, because imports of DAP and MOP were curtailed due to adverse Government decisions. The Company had to bear additional interest cost because of the delay in receipt of subsidy. However, there was a growth in the sales of NPK, Tracel and Organic fertilisers, which improved the profitability of the fertiliser business.

Seeds: The seed business grew significantly over last year. Considering its substantial potential, the Company invested in a new research facility for further development of high quality seeds, especially those which are needed to complete the range required by the farmers in different parts of the country.

New Businesses: The Company incorporated a new subsidiary, "Rallis Farm Management Services Pvt. Ltd." for providing advisory services in different areas of agriculture. This Company will provide the farmers with a composite package of inputs in addition to services, so that they can achieve better yields and higher incomes. This subsidiary would also be involved in the production of seeds, special crops, besides demonstration farms in low productivity areas.

The Company also took over the management of Oriental Seritech Ltd., which carries on the business of sericulture at Nashik and has expanded the same to supplement the seed production facilities for a variety of crops.

Pharmaceuticals: Introduction of new high-margin products enabled the Division to register a substantial growth in profits. The Company plans to aggressively grow in this area by adding further to its range. Negotiations are in progress with international pharmaceutical companies for introducing more new and effective products in the coming year. The strategic participation in a joint venture Company in Zimbabwe with Caps Holdings Ltd., which controls 60% of the Pharmaceuticals market in that country, will further contribute to the growth of the business.

Fine Chemicals: A long term settlement was reached with the labour. The offtake of finished products levelled off during the year in the domestic market. However, restrictions on export to Europe depressed prices in the domestic market. The Company was successful in establishing new markets in U.S.A. and Japan, which compensated for the loss in business to Europe. The Animal Feed business of the Company performed satisfactorily during the year and was supplemented by adding new veterinary products to the range.

Leather Chemicals: Leather Chemicals business registered further growth with the introduction of a new range in finishing chemicals and fat liquors from principals in Europe. The Division plans to consolidate its position as an input supplier and is negotiating tie-ups with manufacturers in Europe for additions to the range.

Research and Development :

Three new products developed in the Company's Research & Development Centre were commercialised and were well received by the farming community. The Company spent an additional Rs.15 crores into its Research activities and Pilot Plant facilities. A new R & D Centre at Turbhe, New Mumbai was commissioned during the year. The Centre is primarily devoted to process development and will also focus on plant medicines. The Company plans to introduce three new products developed at the Centre in the ensuing year.

Finance :

During the year, the Company paid back a sum of Rs.7.75 crores on the different Series of Debentures which came up for redemption. The Company exercised its call option on the 14% Cumulative Redeemable Preference Shares of Rs.10/- each, and redeemed the same in two tranches on 1st March, 1999 and 31st March, 1999. The Company also issued 2,00,00,000, 11% Cumulative Redeemable Preference (CRP) Shares of Rs.10/- each, aggregating to Rs.20 crores. The CRP Shares were allotted on 20th February, 1999 for a period of 5 years, with a "put" and "call" option at the end of the first, second, third and fourth years.

A sum of Rs.2.75 crores has been transferred to General Reserve, leaving a balance of Rs.20.85 crores carried forward in the Profit & Loss Account.

With regard to Note No.6 of the Auditors' Report, at the last Annual General Meeting, shareholders were informed that the Company, with a view to resolving expeditiously the claims and counter claims, in respect of the sale of the erstwhile Engineering Division and the two Engineering subsidiaries to Mr. M. P. Poddar and his nominees, referred the matter to arbitration. Both parties had appointed Mr. A. M. Ahmadi (Retired Chief Justice of the Supreme Court of India) as the Sole Arbitrator. The arbitration proceedings are complete and the final arbitration award is awaited.

As regards Note No.7 of the Auditors' Report relating to the short provision of gratuity liability, the Directors draw the attention to Note No.5 (b) and (c) in Schedule 19, which is self explanatory.

Y2K COMPLIANCE :

The Company has put in place a detailed programme to monitor the Y2K compliance of all its systems. All financial accounting and other data processing systems are operating on Y2K compliant systems. The software, hardware, operating systems and networking equipment at all the locations requiring remedial measures have been identified.

The software which is not Y2K compliant has been modified significantly and desktops which are not Y2K compliant are in the process of being replaced. The process control equipment is being tested and where required modified. The exercise is expected to be completed by October 1999. The total cost of modification and replacement is estimated to be Rs.2 crores.

JRD-QV PROGRAMME :

The JRD-QV movement is a programme designed by the Tata Group to promote business excellence. It strives to improve product and service quality, consequently customer satisfaction, with a built-in framework for monitoring continuous improvement.

The Company has participated in this programme and, through continuous improvement, qualified to become a member of the Brand Equity and Brand Promotion Scheme of the Tata Group.

TATA CODE OF CONDUCT :

Simultaneously, with the signing of the Tata Brand Equity and Brand Promotion Agreement, the Company has adopted the Tata Code of Conduct which has to be followed by all its employees. It requires the Company to maintain the highest standard of corporate governance at all establishments. It re-enforces the core Tata values of integrity, unity, excellence, understanding and responsibilities which have been embodied in detail in the Tata Code of Conduct.

INDUSTRIAL RELATIONS :

Harmonious industrial relations prevailed in the Company during 1998-99.

SUBSIDIARY COMPANIES

Rallis Industrial Chemicals Limited :

The Company undertook an expansion programme to rationalise the capacity of its existing products and upgraded the quality in order to tap the export market. The Company registered a net profit of Rs.82.39 lacs during the year under review. The profits of the Company will improve in the coming years as it plans to diversify into new products.

Ralchem Limited (formerly known as Fashutana Investments Limited) :

During the year, the Company purchased the Chemicals Business of Voltas. The name of the Company was changed from Fashutana Investments Limited to Ralchem Limited to reflect the new manufacturing business carried on by the Company. The Company also made a Rights issue of Rs.14.80 crores to enable it to acquire the above unit.

After the acquisition, the Company substantially improved the operations of the unit, which resulted in a saving in operating costs and improvement in margins. Strategic pricing and improvement in quality led to a higher market share, resulting in profits in the very first year of operations.

Rallis Finance & Investments Company Limited :

During the year under review, the Company made a net profit of Rs.21.21 lacs. The Management plans to re-activate the Company and expand its operations in the future.

SAFETY MEASURES

The Company has taken steps to ensure that necessary measures are implemented to secure safety of all operations. It has a strong commitment to Responsible Care Programme which was pursued rigorously in its manufacturing locations.

COMMUNITY DEVELOPMENT

The Company values the concept of Good Corporate Citizenship and is committed to community development in rural areas and in Mumbai. It has evolved strategies which aims at enriching the quality of life of farmers and the citizens of Mumbai.

Farm Management :

The Company has developed extensive farm management techniques for commercial crops. Through several PEACE Centres (Pesticide Efficacy Advisory Centre) and TTK (Tata Kisan Kendra) Centres across the country, it has propagated practical farm management techniques to increase the yield and wealth of the farmer.

Rallis takes active part in Community Development activities of TCCI (Tata Council for Community Initiatives), which aim towards improvement of the Quality of Life of the underprivileged.

DIRECTORS

Mr. K. T. Ramaswamy, Nominee Director of the General Insurance Corporation of India resigned from the Board with effect from 14th October, 1998. The Board recorded its deep appreciation of the valuable services rendered by Mr. Ramaswamy during his tenure as a Director of your Company.

In accordance with Article 113B of the Articles of Association of the Company, General Insurance Corporation of India proposed the nomination of Mr. K. N. Bhandari as a Nominee Director and he was appointed as a non-rotational Director effective 16th October, 1998, in the vacancy caused by the resignation of Mr. Ramaswamy.

Mr. R. Gopalakrishnan was appointed as an Additional Director with effect from 28th June, 1999. Pursuant to Section 260 of the Companies Act, 1956 and Article 116 of the Articles of Association of the Company, Mr. R. Gopalakrishnan vacates office and is eligible for appointment.

In accordance with Article 112(2) of the Articles of Association of the Company, Dr. F. A. Mehta, Dr. Ram S. Tarneja and Mr. V. N. Nadkarni retire and are eligible for re-appointment.

VOLUNTARY DELISTING OF THE COMPANY'S SECURITIES FROM THE CALCUTTA AND MADRAS STOCK EXCHANGES :

The Company's securities are presently listed on The Stock Exchange, Mumbai, The National Stock Exchange of India Limited, The Calcutta Stock Exchange Association Limited and the Madras Stock Exchange Limited.

With the computerisation of The Stock Exchange, Mumbai and The National Stock Exchange where the Company's shares are listed, shareholders even in remote areas have ready accessibility to these networks and the Company's listing on the smaller Exchanges in Calcutta and Madras is no longer felt necessary. Moreover, the number of shareholders situated in these two regions is negligible and the trading volume is minimal. The listing fees paid in respect of these two Stock Exchanges is disproportionately higher as compared to the benefits derived from being members of the said Exchanges. The delisting has to be approved by a Special Resolution of the shareholders which appears in Item No. 9 of the Notice of the Annual General Meeting.

AUDITORS

At the Annual General Meeting, members will be required to appoint Auditors for the current year and fix their remuneration. M/s. Lovelock & Lewes, the existing Auditors have furnished a certificate regarding their eligibility for re-appointment. The Directors recommend that they be re-appointed as Auditors of the Company for the current year.

COST AUDITORS

Pursuant to the directives of the Central Government under the provisions of Section 233B of the Companies Act, 1956 qualified Cost Auditors have been appointed to conduct Cost Audits relating to Bulk Drugs and Formulations of the Pharmaceuticals Division, Insecticides (Technical Grade and Formulations) and Fertilizers of the Agrochemicals Division of the Company.

CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO

As required under Section 217(1)(e) of the Companies Act, 1956 read with the Companies (Disclosure of Particulars in the Report of Directors) Rules, 1988, the information relating to conservation of energy, technology absorption and foreign exchange earnings and outgo is annexed.

PARTICULARS OF EMPLOYEES

The information required under Section 217(2A) of the Companies Act, 1956 and the rules made thereunder, is given in the Annexure which forms part of this Report. In terms of Section 219 (1) (b) (iv) of the Act, the Report and Accounts are being sent to the Shareholders excluding the aforesaid Annexure. Any Shareholder interested in obtaining a copy of the said Annexure may write to the Director - Legal & Company Secretary at the Registered Office of the Company. The Company had 2,694 employees as on 31st March, 1999 and 21 employees employed throughout/ part of the year, were in receipt of remuneration of Rs.6,00,000/- per annum or Rs.50,000/- or more per month as the case may be.

ACKNOWLEDGEMENT

The Board wishes to convey its appreciation to all the employees of the Company for their individual and collective contribution to the Company's performance. The Board also wishes to thank the Company's shareholders, customers, suppliers and bankers for their continued support to the Company and the confidence which they have reposed in its management.

On behalf of the Board of Directors

F. A. MEHTA

Chairman

Mumbai, 30th June, 1999.

ANNEXURE TO THE DIRECTORS' REPORT

(Under Section 217(1)(e) of the Companies Act, 1956)

Disclosures**A. CONSERVATION OF ENERGY****a) Energy Conservation Measures Taken :**

Energy audit was undertaken at all manufacturing sites and its findings are being implemented. In addition to energy savings from these schemes, it has also resulted into improved process yields and better equipment performance, thereby improving the cost of production.

b) Additional Investments and Proposals, if any, being implemented for reduction of Energy Consumption :

The plants at Turbhe and Ankleshwar were modernised and instrumented during the year in order to improve yields and reduce energy consumption. Other plants will be upgraded in the ensuing year in a phased programme which is under implementation.

c) Impact of the measures at (a) and (b) for reduction of Energy Consumption and consequent Impact on the Cost of Production :

Measures stated above have resulted into improved efficiency and lower energy consumption thereby contributing to reduction in the cost of production.

d) Total energy consumption and energy consumption per unit of production as per Form A :**FORM 'A'****DISCLOSURE OF PARTICULARS WITH REGARD TO CONSERVATION OF ENERGY****A. Power & Fuel Consumption**

			1998-99			1997-98		
			Agro-Chemicals	Fine & Chemicals	Pharma-ceuticals	Agro-Chemicals	Fine & Chemicals	Pharma-ceuticals
1. Electricity								
a) Purchased								
Unit	in lacs of Kwh		176.21	100.51		169.00	95.53	
Total amount	Rs. lacs		732.00	390.00		640.00	342.00	
Rate/ Unit	Rs.		4.15	3.88		3.59	4.14	
b) Own Generation through Diesel generator								
Unit	in lacs of Kwh		28.71	5.11		48.49	0.16	
Unit per litre of diesel oil	Kwh		3.00	7.66		2.69	1.90	
Cost/ Unit	Rs.		3.84	4.23		5.74	5.71	
2. Coal/ Fire Wood/ Spent Wood	MT		-	3646		-	1225	
Total Cost	Rs. lacs		-	25.57		-	5.44	
Rate/ Unit	Rs.		-	701		-	444	
3. Furnace Oil								
Quantity	Kl		3342.32	4511		3606.00	4225	
Total Amount	Rs. lacs		210.42	261.70		248.00	264.00	
Av. rate/ litre	Rs.		6.30	5.80		6.90	6.55	
4. Others/ Internal Generation (Light Diesel Oil)								
Quantity	Kl		964.60	392.18		19.50	547.00	
Total Cost	Rs. lacs		110.11	35.38		2.12	48.00	
Rate/ Unit (High Speed Diesel)	Rs.		11.63	9.03		10.87	8.85	
Quantity	Kl		-	274.00		-	89.00	
Total Cost	Rs. lacs		-	29.23		-	7.71	
Rate/ Unit	Rs		-	10.67		-	8.64	

B. Consumption per unit of production**AGROCHEMICALS, FINE CHEMICALS AND PHARMACEUTICALS**

The operations of the Agrochemicals, Fine Chemicals and Pharmaceutical Divisions being of a multi-product, multi-cycle type, consumption per unit for each product cannot be meaningfully determined.

B. TECHNOLOGY ABSORPTION**FORM 'B'****Research and Development (R & D)****1. Specific areas in which R & D is carried out by the Company :**

- i) Chemical Synthesis process of new Pesticides and Fine Chemicals were developed in the year. New projects were initiated in the area of Phytomedicines. Specific emphasis is also given for the improvement of the existing manufacturing processes, value added by-products and backward integration of inputs.
- ii) Development of new formulations to increase the safety and efficacy of various products marketed by the Company and to develop new eco-friendly formulations for both domestic and international markets. New facility for WDG formulations based on in-house R&D was installed during the year.

2. Benefits derived as a result of above R & D:

- i) Four new pesticides and one speciality polymer developed by in house R & D were introduced in the year and successfully commercialised.
- ii) The Company achieved several improvements in existing processes. This helped in reducing costs and increasing competitiveness.
- iii) New formulations developed by R & D were commercialised. They added to the product range and will start contributing higher profits in the future.

3. Future Plan of Action :

New products for the domestic and export market are being developed. Many of these will be commercialised in the next five years. They will strengthen the Company's position in Agrochemicals and Pharmaceuticals.

4. Expenditure on R & D :

	1998-99 Rs. lacs	1997-98 Rs. lacs
Capital	3,76.02	1,28.10
Revenue	11,07.42	9,47.74
	<u>14,83.44</u>	<u>10,75.84</u>
Total R & D expenditure as a percentage of total turnover	1.18%	0.89%

Technology Absorption, Adaptation and Innovation

1. The continuous upgradation of processes for existing products resulted in better productivity, efficiency and quality.
2. Product improvements have and will continue to result in improved productivity and cost reduction and this will improve the profitability of the Company.
3. There is no import of technology during the last 5 years.

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

Total Foreign Exchange used and earned

	1998-99 Rs. lacs	1997-98 Rs. lacs
1. Foreign Exchange Earned	1,04,43.81	96,22.72
2. Outgo of Foreign Exchange – for regular business and Imports of Fertilisers	1,68,01.38	2,35,66.73
3. Remittances of Dividends (Net)	36.38	32.74