

Agrochemicals, Pesticides, Insecticides, Fungicides, Herbicides, Biofertilizer, Vermicompost Manufacturing

**The Complete Technology Book on Pesticides, Insecticides,
Fungicides and Herbicides (Agrochemicals) with Formulae,
Manufacturing Process, Machinery & Equipment Details 4th
Revised Edition**

Author: Dr. Himadri Panda

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Pages: 560

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Agrochemicals are chemical agents that are applied to fields to boost the nutrient content of the soil or crops. Herbicides, fungicides, and insecticides are among them, as are synthetic fertilizers, hormones, and soil conditioners. They boost agricultural growth by eradicating pests that wreak havoc. They are used in horticulture, dairy farming, poultry farming, crop shifting, commercial planting, and other farming industries. ¶ A pesticide is any substance that is used to kill, repel, or control pests in plants or animals. ¶ Insecticides are chemicals that are used to keep insects under control by killing them or stopping them from engaging in undesired or damaging behaviour. Their structure and mode of action are used to classify them. ¶ Fungicides are pesticides that kill or prevent fungus and their spores from growing. They can be used to manage plant-damaging fungi such as rusts, mildews, and blights. They could also be used to keep moulds and mildew at bay in other places. ¶ Herbicides are chemicals that are used to control or manage unwanted vegetation. Herbicides are most commonly used in row-crop farming, where they are treated before or during planting to increase crop productivity while reducing other vegetation. The global agrochemicals market estimated size is CAGR of 3.4%. Increasing demand for food supply due to the rapid growth in the human population has triggered agricultural intensification. Agrochemicals are widely employed in agriculture to meet rising food demands, bridging the gap between food supply and consumption. Concurrently imbalanced use of agrochemicals, on the other hand, degrades the environment and poses serious threats to aquatic and terrestrial ecosystems. Chemical agents used in agricultural lands to increase nutrient shortage in the field or crop are known as agrochemicals. They also help to boost crop development by destroying hazardous insects. Agrochemicals increase the quantity and quality of agricultural goods. These are utilized in horticulture, dairy farming, cattle, grain farming, shifting cultivation, commercial plantation, and many other agricultural fields. The book covers a wide range of topics connected to Pesticides, Insecticides, Fungicides and Herbicides, as well as their manufacturing processes. It also includes contact information for machinery suppliers, as well as images of equipments. A complete guide on Agrochemical Products manufacture and entrepreneurship. This book serves as a

one-stop shop for everything you need to know about the Pesticides, Insecticides, Fungicides and Herbicides manufacturing industry, which is ripe with opportunity for manufacturers, merchants, and entrepreneurs. This is the only book that covers Agrochemical in depth. From concept through equipment procurement, it is a veritable feast of how-to information.

The Complete Technology Book on Biofertilizer and Organic Farming (Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details) 3rd Edition

Author: Dr. Himadri Panda

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Book Code: NI115

Pages: 480

ISBN: 9789381039076

Price: Rs. 1,895.00 US\$ 48.00

Organic fertilisers derived from natural sources such as plants, animals, and microorganisms are known as biofertilizers. They are high in nutrients such as nitrogen, phosphorus, and potassium. Biofertilizers are environmentally friendly, long-lasting, and less expensive than synthetic fertilisers. Biofertilizers can be applied directly to the soil to improve fertility and crop yield. They are also used in conjunction with other organic farming practises to improve soil health, such as composting and mulching. Biofertilizers contribute to a reduction in the use of chemical fertilisers, which can pollute water sources and harm the environment. Biofertilizers improve crop quality by increasing nutrient content and improving taste, in addition to their environmental benefits. They also improve plant resistance to diseases and pests. Organic farming is a subset of agriculture that emphasizes natural methods such as composting, crop rotation, and the use of organic fertilisers and pest control. Organic farmers grow their crops without the use of synthetic fertilisers, pesticides, or genetic engineering. Instead, they rely on naturally occurring nutrients in the soil and organic matter, such as compost and manure, to provide essential nutrients and minerals to their plants. Organic farmers also use traditional farming methods that promote biodiversity, soil fertility, and water conservation. Organic farming focuses on producing food in an environmentally friendly manner while also respecting animals and nature. The global biofertilizers market is expected to grow at a CAGR of 12.04% during the forecast, from \$2.02 billion to \$4.47 billion. Organic farming is one of the fastest-growing agricultural methods in the world, with 72.3 million hectares of agricultural land under organic agriculture management globally, according to the Research Institute of Organic Agriculture. The use of synthetic fertilisers contaminated the soil and killed microorganisms. Organic farming is rapidly becoming popular in order to reduce soil pollution. Organic agriculture makes the best use of local resources to improve soil fertility while avoiding agrochemicals, GMOs, and many synthetic compounds used as food additives. The growing demand for organic food motivates farmers to use bio-based fertilisers that are compatible with organic food production. Higher product appreciation and adoption among farmers in developing and developed economies are expected to positively influence the

growth of the Biofertilizers Market in the coming years. Furthermore, agricultural producers' active participation in ramping up their biological agriculture, such as bio-origin fertilisers, is expected to boost the growth of the Biofertilizers Market in the coming years. Furthermore, the rise in food product demand and per capita income has created enormous opportunities for the growth of the Biofertilizers Market in various regions and countries around the world. The book's main contents are Biofertilizer, Organic Farming, Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas, Anaerobic Digesters, Biopesticides, and Organic Manure. The Manufacturing Process, Machinery Equipment Details, and Photographs with Suppliers Contact Details are also given. A total guide to manufacturing and entrepreneurial success in today's most demandable Biofertilizer and Organic Farming industry. This book is one-stop guide to one of the fastest growing sectors of the Biofertilizer and Organic Farming industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial production of Biofertilizer. It serves up a feast of how-to information, from concept to purchasing equipment.

The Complete Technology Book on Vermiculture and Vermicompost (Earthworm) with Manufacturing Process, Machinery Equipment Details & Plant Layout 2nd Edition

Author: Dr. Himadri Panda

Format: Paperback

Book Code: NI116

Pages: 368

ISBN: 9788195370146

Price: Rs. 1,275.00 **US\$** 33.95

Advantage of vermicomposting is that it composts the wastes of rural areas. They clean our villages by using unnecessary organic and non-organic materials. Improves the texture of the soil and its ability to store water. Improves root growth and the multiplication of beneficial soil microorganisms by providing optimum aeration to the soil. Vermicompost (vermi-compost) is a mixture of decomposing vegetable or food waste, bedding materials, and vermicast created by the decomposition process using various species of worms, usually red wigglers, white worms, and other earthworms. This is known as vermicomposting, and the practise of raising worms for this purpose is known as vermiculture. Sewage treatment can also be done with vermicomposting. The Global Vermicompost Market is reach growing at a CAGR of 16.74%. The Growth of the global vermicompost market is caused by various factors, such as improved soil aeration, improved water holding capacity, better nutrient cycle, and enriched soil with micro-organism, helps in plant root growth and structure, enhanced germination. The vermicomposting method is used in organic farming. Increasing the use of sustainable agricultural practices, such as vermicomposting along with Government support for organic farming is significantly contributing to the global vermicompost market growth. Vermicompost offers plants with necessary nutrients and helps in plant diseases suppression. Worm castings often comprise 7 times more phosphorus, 11 times more potassium, and 5 times more nitrogen than ordinary soil, which are crucial minerals required for plant growth. Vermiculture and Vermicompost (Earthworm), as well as their manufacturing methods, are all covered in depth in this book. It also offers photos of equipment as well as contact information for industrial providers. This book is a one-stop shop for everything you need to know about the Vermiculture and Vermicompost (Earthworm) industry, which is ripe for manufacturers, merchants, and entrepreneurs. This is the only book that goes into great detail about Vermiculture and Vermicompost. It's a genuine feast of how-to material, from concept to equipment buying.

Author: NPCS Board of Consultants & Engineers

Format: Hardcover

Book Code: NI210

Pages: 544

ISBN: 9788178331133

Price: Rs. 1,575.00 **US\$** 42.56

Biopesticides are certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain minerals. Agricultural pesticides, properly used, are essential in supplying the food requirements of the world ever growing population. The use of synthetic pesticides affects the health of human being. The indiscriminate use of pesticides has adversely affected the health of the soil. The residual pesticides in the soil not only affect the soil quality but also the water quality, as they get leached into the ground water. Due to these reasons, role of biopesticides are very important for sustainable agriculture. The use of biopesticides for sustainable agriculture is a complex issue that at times is difficult to comprehend and plan. Biopesticides are usually inherently less toxic than conventional pesticides. They generally affect only the target pest and closely related organisms, in contrast to broad spectrum, conventional pesticides that may affect organisms as different as birds, insects, and mammals. They often are effective in very small quantities and often decompose quickly, thereby resulting in lower exposures and largely avoiding the pollution problems caused by conventional pesticides. Biopesticides, key components of integrated pest management (IPM) programmes, are receiving much practical attention as a means to reduce the load of synthetic chemical products being used to control plant diseases. In most cropping systems, biological pesticides should not necessarily be viewed as wholesale replacements for chemical control of plant pests and diseases, but rather as a growing category of efficacious supplements that can be used as rotation agents to retard the onset of resistance to chemical pesticides and improve sustainability. In organic cropping systems, biopesticides can represent valuable tools that further supplement the rich collection of cultural practices that ensure against crop loss to diseases. Some of the examples of biopesticides are triazino benzimidazol, thiophene sar, pyrazoles, hydroxyacetophenones, benzoylphenylureas, thiadiazolo S triazine etc. It is observed that India occupies a comparatively better position in the arena of biopesticides; in terms of growth of usage, percentage share of the total pesticide market and also in research publications. The driving forces behind this progress are identified as huge research infrastructure (universities and bio control labs) and favourable public support system/policies. Subsequently, it delves on strategies to incorporate the promotion of biopesticides into rural development efforts like

recognition of the huge traditional knowledge base and use of biopesticides developed using indigenous technologies. Some of the fundamentals of the book are synthesis of triazino benzimidazol as 1 biopesticides, synthesis and pesticidal activities of thiadiazolo S triazine and imidazol, synthesis and antimicrobial activities of pyrazoles, effects of penconazole on plasma membrane, metabolism of diclofop methyl , bleaching herbicides stimulate maize HMGR activity, soil transformation of acetochlor, propanil degrading amidase activity, inhibition of BTX B binding by RH 3421, KDR type resistance in German cockroach etc. This is the first book of its kind which provides different parameters about biopesticides. The book will not only be resourceful for new entrepreneurs but will also help the technocrats, research scholars and those who willing to know more about biopesticides.

Selected Formulary Book on Petroleum, Lubricants, Fats, Polishes, Glass, Ceramics, Nitrogenous Fertilizers, Emulsions, Leather and Insecticides

Author: NPCS Board of Consultants & Engineers

Format: Hardcover

Book Code: NI211

Pages: 784

ISBN: 9788190568562

Price: Rs. 2,275.00 US\$ 200.00

A man entering an industry soon finds that most of the products manufactured by his company are not synthetic or definite chemical compounds, but are mixtures, blends or highly complex compounds of which he knows little or nothing. The literature in this field, if any, may be meager, scattered or antiquated. Formulation is a key process in the overall life cycle so that products are delivered that is of the right quality, at a competitive cost, and is made available within the specified time scale. A formula is an entity constructed using the symbols and formation rules of a given logical language. In science, a specific formula is a concise way of expressing information symbolically as in a mathematical or chemical formula. The chemical formula identifies each constituent element by its chemical symbol and indicates the number of atoms of each element found in each discrete molecule of that compound. If a molecule contains more than one atom of a particular element, this quantity is indicated using a subscript after the chemical symbol and also can be combined by more chemical elements. It is all in the formula, whose implications also remain undiscovered by modern economists. It plays a major role in every process whether it is manufacturing process or preservation. There is a big importance of formula in our life because formulas and equations deal with everyday things like shapes, investments, mixing things, movement, lighting, travel and a host of other things they provide information you can use in planning activities. This book basically deals with the extracting oil from cottonseed, silver nitrate test for cottonseed oil, solid linseed oil, decolorizing or bleaching linseed oil, linseed oil for varnish making, refining linseed oil, mineral oil, leather stuffing grease, leather adhesion grease, liquid belting lubricant, belt adhesion compounds, belt preserving grease, government harness dressing, rubber belt dressing (non static), wire drawing lubricant, wire drawing composition, metal drawing lubricant, cold drawing metal lubricant, drawing compound for aluminum, brass drawing lubricating emulsion, sheet steel drawing lubricant, non seizing threads and gaskets, machine tool lubricant, slushing oil for metal protection horse shoe grease etc. This book is an invaluable resource of the formulae of petroleum, lubricants, fats, polishes, glass, ceramics, nitrogenous fertilizers, emulsions, leather and insecticides. This book present

several hundred advanced product formulations for household, industrial and other applications. The purpose of publishing this book is very useful for chemists, entrepreneurs, existing units, technocrats and engineering students.

Directory / Database of Corporate/Leading Companies in Indian Pesticides, Insecticides & Fungicides Products (with Financial Figures) 5th Edition

Format: CD-Rom

Book Code: NID139

Price: Rs. 3,953.00 **US\$** 150.00

"Contains: 184 records with following information: Name of Company, Address, City, Pin Code, Phone, Fax, Email (141), Website (94). Name of Directors, Location of Plants, Project Capacity, Production, Name of Products, Turnover, Product industry Code, List of Major Raw Materials with their consumption quantity & Raw material value, credit ratings. Comparison amongst companies (Cash Flow, Cost as % of sales, Forextransactions, Growth in Assets & Liabilities, Growth in Income & Expenditure, Income & expenditure, Liabilities, Liquidity Ratios, Profitability Ratio, Profits, Return Ratios, Structure of Assets & Liabilities (%), Assets, Working Capital & Turnover Ratios) (*Wherever available) Note: All Records does not contain all fields of information. However, maximum information has been incorporated. Format: MS Excel "

Manufacture of Biofertilizer and Organic Farming

Author: H. Panda

Format: Paperback

Book Code: NI239

Pages: 336

ISBN: 9788178331461

Price: Rs. 975.00 US\$ 25.95

With the introduction of green revolution technologies, the modern agriculture is getting more and more dependent upon the steady supply of synthetic inputs. Intensive agriculture with the use of chemical fertilizers in large amount has, no doubt, resulted in manifold increase in the productivity of farm commodities but the adverse effect of these chemicals are clearly visible on soil structure, micro flora, quality of water, food and fodder. At this critical juncture, biofertilizers are useful supplement to chemical fertilizers. Organic farming has emerged as the only answer to bring sustainability to agriculture and environment. Biofertilizers is also an ideal for practicing organic farming. Biofertilizers are the most advanced biotechnology necessary to support developing organic Agriculture, sustainable agriculture, green agriculture and non-pollution agriculture. Bio Fertilizer are natural and organic fertilizer that helps to keep in the soil with all the nutrients and live microorganisms required for the benefits of the plants. Today product like biofertilizers using the biotechnology techniques have proved that biological control is widely regarded as a desirable technique for controlling insects and pests, due to its minimal environmental impact and its avoidance of problems of resistance in the vectors and agricultural pests. The increasing demand for biofertilizers and the awareness among farmers and planters in the use of biofertilizers have paved way for the fertilizer manufacturers and new entrepreneurs to get into biofertilizers production. It is one of the important components of integrated nutrient management, as they are cost effective and renewable source of plant nutrients to supplement the chemical fertilizers for sustainable agriculture. This book gives a detailed process on manufacture of biofertilizers & organic farming. It contains chapters on biofertilizers, role of biofertilizer in crop production, production and distribution of biofertilizer, organic farming, method of organic farming, weed and pest management, and many more. This book will be very helpful to soil scientists, microbiologists, biologists, students, new entrepreneurs, fertilizer industry, organization engaged in biofertilizers production, training centres and to all those interested in the efficient use and recycling of wastes, resource management and sustainable farming.

[Directory / Database of Corporate/Leading Companies in Indian Fertilizer Industries \(Chemical and Bio\) with Financial Figures \(8th Edition\) \[.xlsx, excel format\]](#)

Format: CD-Rom

Book Code: NID176

Price: Rs. 6,667.00 **US\$** 225.00

"Products: NITROGENOUS FERTILIZERS Ammonium Chloride, Ammonium Sulphate, Sodium Nitrate, Calcium Cyanamide, Calcium Nitrate, Magnesium Nitrate, Nitrogenous Straight Fertilizers PHOSPHATIC FERTILIZERS Superphosphates, Phosphatic straight Fertilizers, Phosphatic NPK Fertilizers POTASSIC FERTILIZERS Crude Natural Potassium Salts, Potassium Chloride, Potassium Sulphate MIXED FERTILIZERS Diammonium Phosphate, Ammonium Phosphate, Ammonium Phosphate Sulphate, Nitrophosphate, NPK Mixed Fertilizers, Other Mixed Fertilizers Contains: 262 records with following Information: Name of Company, Address, City, Pin Code, Phone, Fax, Email (214), Website (112). Name of Directors, Location of Plants, Project Capacity, Production, Name of Products, Turnover, Product industry Code, List of Major Raw Materials with their consumption quantity & Raw material value, credit ratings. Comparison amongst companies (Cash Flow, Cost as % of sales, Forextransactions, Growth in Assets & Liabilities, Growth in Income & Expenditure, Income & expenditure, Liabilities, Liquidity Ratios, Profitability Ratio, Profits, Return Ratios, Structure of Assets & Liabilities (%), Assets, Working Capital & Turnover Ratios) (*Wherever available) Note: All Records does not contain all fields of information. However, maximum information has been incorporated. Format: MS Excel, .xlsx "

[Manufacture of Biofertilizer and Organic Farming \(2nd edition\)](#)

Author: Dr. Himadri Panda

Format: Paperback

Book Code: NI369

Pages: 328

ISBN: 9788195744794

Price: Rs. 1,195.00 US\$ 49.00

Manufacture of Biofertilizer and Organic Farming (2nd edition) The book "Manufacture of Biofertilizer and Organic Farming" offers an extensive overview of the biofertilizer industry, touching on all aspects from production techniques to the application within organic farming practices. The table of contents reveals a comprehensive structure, guiding the reader through a thorough exploration of biofertilizer types, production methods, manufacturing processes, and applications in organic farming. This book appears to serve as an invaluable resource for those interested in sustainable agriculture, providing insights into the benefits and challenges associated with biofertilizers and organic farming methods. Starting with an introduction to biofertilizers, the book classifies them based on their types and sources of nitrogen fixation, further detailing the components and characteristics of common biofertilizers. It also outlines the application methods, limitations, and production processes for bio powder and granulate fertilizers. This foundation sets the stage for a deeper dive into the biofertilizer manufacturing business, providing a step-by-step guide on starting and running such a venture, including business planning, technology sourcing, manufacturing processes, and marketing strategies. The classification section further delves into biofertilizers based on the microorganisms used and their functions, offering a detailed look at the types of biofertilizer and their uses in agriculture. The production sections discuss various methods, including the use of fermenters, tea waste, and even bird excreta, showcasing the diversity in raw materials that can be utilized in biofertilizer production. It also covers the manufacturing of phosphate-rich organic manure (PROM), highlighting its importance and benefits. The later chapters focus on organic farming, outlining its advantages, types, and nutrient management techniques. It emphasizes weed, pest, and disease management within organic farming systems, presenting methods and practices to enhance sustainability. Additionally, it discusses the regulatory framework, certification processes, and government schemes promoting organic farming, particularly in the Indian context. The book concludes with an exploration of future challenges and opportunities in the biofertilizer industry and organic farming, suggesting areas for further research and development. "Manufacture of Biofertilizer and Organic

Farming" is designed to be a detailed resource for entrepreneurs, startups, farmers, researchers, and students interested in sustainable agriculture. It provides a comprehensive understanding of the biofertilizer production process and its critical role in supporting organic farming practices. Through its detailed explanations and practical guidelines, this book aims to promote the adoption of sustainable agricultural practices that benefit the environment, enhance soil health, and contribute to food security.

About NIIR

NIIR PROJECT CONSULTANCY SERVICES (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

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