

## BioAgri attracts domain specialists

11 December 2003 | News



The thrust on the bioagri segment has led to the establishment of new companies. Many traditional seed companies have also branched out in agricultural biotechnology. This industry has requirements in the areas of research, technical support and marketing and most of the companies are both into product development and its marketing.

"As agriculture is a dominant sector in India, we see a huge opportunity. The surge in opportunity will be in improving agricultural productivity," said Dr Viloo Morawala-Patell, founder and CEO, Avestha Gengraine Technologies, a fully integrated biotechnology and bioinformatics company. "BioAgri will be a very strong sector in the years to come, in view of the Indian government's decision to open the market for biotech crops," said Dipankar Bandyopadhyay, HR Manager, Monsanto India. Monsanto, an integrated agri solutions provider, has introduced the country's first GM crop—Bollguard (Bt cotton).

India offers a huge market for agribiotech products as more than half of the country's population depends on agriculture. "Indian market is big, value lies in making products suited to Indian agronomy and markets," commented Dr Gautham Nadig, director, Metahelix Life Sciences, a young agribiotech company.

Depending on the domain specialization of the company, the job categories vary and accordingly the qualifications required also differ. Morawala-Patell said, "the different job categories at Avesthagen are technical, scientific, business development, administration, finance, legal, PR, clinical, product development and software programmers." She added, "we have a separate bioagri segment with state of the art laboratory and high throughput technology to cater to various R&D services. We recruit people with PhD and MSc for the science aspect of business and MBA's for business development and other

management related positions, LLB's and also people specializing in patent law."

Camson Bio Technologies, a Bangalore based agribiotech company, is into research, development and marketing of biopesticides and seeds. Dhirendra Kumar, CEO, Camson said, "the minimum qualification that we look for is BSc agriculture coupled with a dynamic and enthusiastic approach. A basic knowledge of crops, diseases, etc is essential for this field. For marketing MBA's are preferred."

Nunhems seeds, a subsidiary of Nunza BV—a Netherlands based vegetable seed company, is involved in research, production and marketing of seeds throughout India. The company has a separate biotech division to address the emerging opportunities in the agri sector and employs molecular biologists and tissue culturists. "We look for MSc and PhD degree holders in molecular biology, biotechnology, tissue culture and their main responsibility is molecular analysis of the material of both lab and field studies and maintenance of tissue culture plants," explained Dr Arvind Kapur, MD, Nunhems seeds.

Companies like Indo-American Hybrid Seeds (IAHS) and Prabhat Agri Biotech have independent biotech divisions, which employ scientists and technical assistants.

The companies look out for candidates having strong subject knowledge, analytical and practical skills, focussed approach and good communication ability. "The candidates should have thorough domain knowledge and practical skills in the areas of molecular biology, biochemistry, genomics, proteomics, metabolomics and bioinformatics. They should have strong ability to manage multiple projects independently and experience in managing and developing technical staff and building a highly motivated team," elaborated Morawala-Patell.

"Keen product development mentality, being able to make sound management decisions, keeping tight time lines and quickly move projects forward, proficient in the use of computers, particularly in the use of application software for various instruments, high energy and enthusiasm and positive 'can do' attitude are some of the other requirements," she added

Monsanto broadly focuses on three areas—agricultural chemicals like herbicides, hybrid seeds and biotech/GM crops. The job categories in the company are sales, product development, marketing (brand management), breeders, hybrid seeds production and research and development.

"For the R&D division doctorates and post doctorates with domain specialization and relevant experience are required. They should have a very high level of technical competence and analytical bent of mind. In the sales division there is intake of candidates with diverse qualifications like MBA, MSc Agri, BCom, PhD, etc. Basically they should have the core ability to understand and explain to the farmers about the merits of the products. Experienced candidates (2-3 years of relevant experience even from a non-agri FMCG background) do have an advantage, but we also take in freshers. Our main focus is not on experience but on the potential of the candidates to deliver and do the job. We focus on a diverse profile," said Dipankar Bandyopadhyay, Monsanto India.

"We focus on excellence, sound communication and analyzing skills and strong knowledge of the market. The essential selection criteria considered are the excellence in educational qualifications, extracurricular activities, experience and key achievements in their fields," he added.

Dr. PS Rao, VP-Biotech, IAHS said, "we do employ postgraduate/PhD degree holders in biotechnology. If the candidate is strong in basics of plant sciences and is able to communicate well, then he has a better chance. This of course includes basic qualification/experience that is desirable. We look for individuals with commitment, who can use biotech tools to enhance crop productivity."

Metahelix Life Sciences, which focuses on trait development, functional genomics and marker-assisted selection, has research technicians and scientists specializing in the areas of plant molecular biology, functional genomics and plant breeding. Dr Gautham Nadig, Director, Metahelix said, "we look for MSc, PhDs in plant breeding, genetics, seed technology and plant molecular biology. The job responsibilities are to plan out experiments, execute them, manage people, work in a team and deliver on time, high quality results."

"Though it is not essential to have experience but a strong academic record and a clear understanding of the basic science is required," he added. But experience is an important selection criterion in some companies as Dr Sateesh Kumar of Prabhat Agri opines, "candidates are selected after personal interviews and experience gives a definite selection edge as bioagri requires more technical and practical lab-oriented skills apart from intelligence".

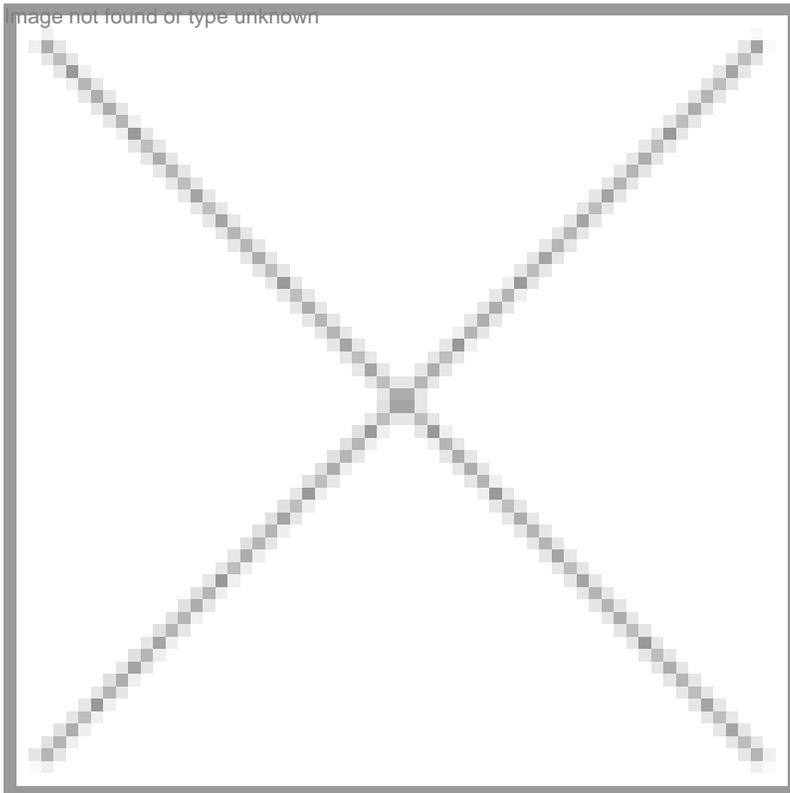
Inviting resumes, screening, short-listing and then interviews is the standard procedure of selection. "At Monsanto recruitment takes place through consultants or through the career section on Monsanto India's website where interested candidates can post their resumes. These resumes are screened and shortlisted candidates have to appear for two rounds of interviews. But in case there is recruitment on a large scale then, in addition, there is a general discussion round also. Lastly there is a reference check," elaborated Dipankar, Monsanto India. Dr Rao, IAHS said, "there is an HRD division and the candidates are taken in through a selection committee of experts in the respective field."

Campus recruitment is the norm in some companies. As Morawala-Patell said, "We are always on the look out for quality people depending on the projects executed and domain knowledge of an individual. Since biotechnology as a sector has close links with academia, campus recruitment is one of the avenues to find aspirants willing to work in the biotech industry." "Campus recruitment is done and some of the institutes where we go are Gandhi Krushi Vigyan Kendra (GKVK), Bangalore, MANAGE, Hyderabad and GB Pant Agricultural University, Uttaranchal," informed Dharendra Kumar, Camson.

Constant upgradation of employee skills and the awareness of the latest developments is facilitated by the companies through a range of training programs. "Training is provided as and when required. For example in areas such as commercial micropropagation the candidates are put on training for a period of 6-12 months within the organization," said Dr Rao, IAHS. "There are regular product training programs in the segments of agri chemicals, hybrid seeds and GM crops. We have Monsanto Advanced Sales Training (MAST) for the sales and marketing division," said Dipankar Bandyopadhyay, Monsanto.

To strengthen the academic-industry relationship many companies conduct training programs/workshops for students. Like IAHS offer technical training in advanced methods of plant cell and tissue culture and r-DNA technology. Dharendra Kumar, Camson said, "the company offers programs for completion of part time masters dissertation and provides technical education and management training programs."





"Students from various colleges/universities in India and abroad come to Avesthagen to do their projects. We also have a tie-up with University of Mysore, where in students can do their PhD at Avesthagen and degree will be awarded by University of Mysore," said Morawala- Patell.

As most of the agribiotech companies and the entire segment as such is young, hence the growth potential for the employees is high. In most of the companies the size of the core work team ranges from about 35 to 100. Taking the entire workforce into consideration (research, technical support and marketing) the ratio of manpower to womenpower is 8:1. But if the research section is seen alone then the ratio can be as high as 1:1. The salaries depend on experience, skills, quality and availability and it varies between Rs 6,000 to 50,000 per month. Many companies like Avesthagen, Camson, Metahelix, etc have plans for recruitment and require candidates for their R&D division.

In the near future agribiotech will no longer be a discrete sector but will become an extension of the existing agricultural system and the industry will see a slow shift from chemical to gene- based solutions in agriculture.

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