

Changing trends in pesticide application

Advancement in pesticide application equipment is being achieved with the extension training programmes which have been started in various countries to train the operators of the equipment.

The demand for more efficient and uniform application of pesticides is increasing. This is due to the farmer's want for crop protection and the equipment manufacturer's effort to reduce the cost of the operator and increase the uniform distribution of the pesticide. Modern equipment includes electronic flow meters, pressure gauges, speed control and a preset value providing a much higher application accuracy than manual controls. To minimize drift and off-target contamination, spray nozzles with variable orifice allowing a fairly constant droplet spectrum and spray angle over a range of pressure and flow rate, have been designed. Combining air-assisted spraying systems and electrostatic charging of sprays application cost is also reduced.

Unfortunately, in many countries, the pesticide application

equipment is still being operated by untrained operators. This is due to the lack of extension training programmes in many countries. The result is that the equipment is not being used to its full potential and the farmer is not getting the best results. This is a major problem in many developing countries.

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Dr. Sagar Bala

A revolution in the equipment scenario has resulted in reduced contamination of the operator and ensured more uniform distribution of the pesticide.

Majority farmers still believe in high pressure, volume and dose, thereby often resulting in run off losses leading to contamination of soil and ground water resources.

A farmer without technical advice will usually choose the cheapest equipment. Aspects of operation

of the equipment is still being operated by untrained operators. This is due to the lack of extension training programmes in many countries. The result is that the equipment is not being used to its full potential and the farmer is not getting the best results. This is a major problem in many developing countries.

lack of proper knowledge at all levels has been identified as the main reason for differences in pesticide application practices. Practical training of farmers and equipment operators has to be introduced. Small groups of paid

trainers dedicated specifically for this purpose, should be organized. These trainers should have a practical background having operated spraying equipment themselves. Training could begin strategically with contractors, offering service to other farmers and then be extended to private farmers and operators.

Manufacturers can offer good quality equipment and incentives for improved quality should to be introduced. A certification system based on technical standards for application equipment is needed to ensure market access to quality equipment. However, a certification system can only be implemented if there are approved national standards for each type of equipment. Apart from the standards of new equipment, the condition of application equipment in actual use should also be considered. The necessary checks and repairs must be carried out. In an introductory phase, this approach should be the first choice to convince the involved parties of the benefits this activity provides for each of them. The advantage is dual, the farmer saves money through reduced pest control costs by using properly adjusted and calibrated equipment and the commercial sector earns by providing the service. Eventually, it might become necessary to introduce mandatory check system. In Germany, this system was introduced in 1993 after post experience with voluntary checks, which had only been used by 20% of farmers.

A FAO Panel of Experts Working Group on Pesticide Application

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tries for the introduction of sustainable long-term improvements in Pesticide application practice at the field level. An important activity within the programme is the formulation of FAO standards for the most common types of agricultural application equipment. These standards are limited to aspects of safety and efficiency and should be applicable worldwide.

Technology allowing a reasonably safe and efficient application of pesticides exists as well as concepts to introduce its use in practice. However, those concepts have to be adopted to the specific situation in each country. Their introduction depends very much on the technical capacity, organization, cultural background and goodwill of the people. Government has the role to play as a coordinator in this entire chore of pesticide application. Harmonious and concerted activities of the farmers, industries and the Government will only be able to give the concept of 'plan' health' a new meaning, keeping at the backdrop the effective mode of application and efficient pest control. ■

Dr. Sujoy Saha,

standards highlighted the importance of equipment standards and appropriate training programmes in 1985. The issue was taken up again by FAO in 1994 with the introduction of a Programme for safe and efficient Application of Agrochemicals and Bio-products. The objective of the programme is to create awareness and establish the basic structures in FAO member coun-

Hikal Chemicals Ltd. has the shareholders. The company's authorised share capital from Rs 15 crore and issued share capital of Rs 10 crore. The company has 100 employees. The company is a public limited company. The company is a public limited company. The company is a public limited company.

The company's meeting confirmed the dividend of Rs 10 crore. The total dividend is Rs 10 crore. The Hikal Chemicals Ltd. has required the agrochemical site from Nov. 1998. The company is a public limited company.

The company's turnover to Rs 100 crore in fiscal 1998 (March) against Rs 80 crore in the previous year. While net profit ending March 1998 increased to Rs 10 crore from a loss of Rs 5 crore in the previous year. The company's per share income for the year ended March 1998 is Rs 9.98 against Rs 2.43 lakh in the previous year.

The board of directors of the company has appointed Unni, Aventis Crop Science as the director of the company.