

CROP PROTECTION MEASURES

Needed, a policy armour

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In the context of achieving 4 per cent per annum growth in agriculture, one aspect that is often ignored is the huge losses that farmers suffer due to ravages of pest and diseases that afflict their crop on and off the fields.

According to a report of Parliament's Standing Committee on Chemicals, the loss of crops due to pest and disease is about Rs 90,000 crore per annum. This is primarily because barely 20 per cent of the cultivated area is covered by crop-protection measures.

HARD FACTS

Safe and judicious use of protected products can minimise crop losses, increase yield and improve crop quality. The challenges facing Indian agriculture drive home the urgent need for a proactive engagement with the crop protection sector.

First, due to limited scope to increase the land area under cultivation, crop yield has to increase manifold to achieve the 4 per cent growth target. This will require an enhancement of cropping intensity and the area under irrigation. But this will make crops more vulnerable to pests and disease.

EXPORT OPPORTUNITIES

Second, under the liberalised WTO regime, India can tap huge opportunities for increasing its agricultural exports. However, this will not be possible unless the agriculture produce meets international quality standards. The domestic consumers too expect quality food.

Third, due to indiscriminate use, already, there has been substantial depletion of available resources — land, water, nutrients. This trend needs to be arrested and efforts made to ensure that Indian agriculture is sustainable and environment friendly as well.

AGRO CHEMICALS USE

Responsible crop care/protection is central to meeting these challenges. This must not be confused with increase in the use of agro-chemicals *per se*. Nor should the concern for protecting the environment lead to believe that agrochemicals should not be used at all.

Adoption of crop protection measures has to take into account the vast variations in agro-climatic conditions that result in highly differentiated profile of pest and disease. This calls for a scientific and focused approach that is crop/pest specific.

A new pesticide molecule in-

The Government should bring in changes to the Insecticides Act to ensure safety and quality of products and educate farmers on crop protection measures.

tended to combat a pest/disease is discovered after years of research. It has to be thoroughly tested for its "efficacy" and "safety" before it is ready for use. This involves huge investment in research and development and sustained effort over a long period.

Extreme care is needed in the entire chain of operations from manufacturing, handling, storage, transport and distribution to ensure that consistently good quality product — of the specification for which it is tested — reaches farmers.

GOOD PRACTICES NEEDED

To realise its full potential, farmers must adopt good agricultural practices (GAP) — how much to use; when to use; and when to harvest the crop on which it is applied. They need massive extension support.

Generally, pests build resistance to continued use of a repellent. To effectively deal with this and tackle the emergence of new pest/disease, there is need for continuous search for new solutions/technologies.

Thus, crop care protection has to be a calibrated and well co-ordinated holistic effort by all stakeholders — R&D companies/manufacturers; dealers; extension agencies and farmers.

Can the present set-up deliver? Does the existing policy and regulatory environment induce companies to invest in R&D and introduce new products/technologies? Does it incentivise adoption of GMP/GAP by manufacturers/farmers? Are extension agencies geared to extend the required support to the farmers?

The Government has no policy for the crop protection sector. The state administrative machinery is clueless and extension/agricultural officers do not feel the urgency of advising farmers on safe and judicious use of disease resistant crop.

CONFUSION CONFOUNDED

Quite often, there are "ill-informed" reports that pesticides pose a risk to human/animal health and the environment. This confuses farmers and affects their ability to take informed decisions. The absence of a policy confounds the confusion.

The uncertainty of the policy environment also affects investment in R&D and manufacture of new



Farmers must have access to better technologies.

generation products/technologies. This is exacerbated by a stifling regulatory environment that delays product registration and launch.

CUMBERSOME NORMS

For instance, no new product — or label claim (use on a new/different crop) of an existing product — can be registered without fixing maximum residue limit (MRL) under the Prevention of Food Adulteration Act 1954 (PFA). The MRL setting process is cumbersome and time consuming.

The Draft MRL recommended by a Technical Committee of Ministry of Health has to be approved by the Central Committee on Food Standards — a statutory body under PFA — which has 52 members. The committee meets only once in a year!

Under Section 9(3) of the Insecticides Act (1968), an applicant is required to conduct long-term studies on a host of parameters having a bearing on "safety" and "efficacy" before the Registration Committee grants market approval. These studies entail huge expenditure.

'ME-TOO' REGISTRANTS

Immediately after grant of the registration, any number of subsequent applicants can get market approval for the same product under Section 9(4) of the Act on the "same terms" as for the original registrant. These "me-too" registrants do not have to conduct any studies!

Thus, research-based companies have no incentive to introduce new crop-protection solutions/technologies. This severely restricts farmers' choice. At around 200, the number of pesticide molecules registered in India is less than half that registered in a small country like Vietnam.

There are no legally enforceable norms for minimum infrastructure facilities for manufacture of disease-resistance products. This, together with the ease of getting "Me-too" registrations, has led to proliferation of manufacturers/suppliers.

POOR ENFORCEMENT

The provisions of the Insecticides Act on quality control — collecting

samples, their analysis, test report — are poorly enforced in most States. Generally, samples are taken from reputed companies ignoring dubious operators! The situation is aggravated by the woefully deficient testing infrastructure with the state/regional pesticide testing laboratories and lack of trained analysts. None of these laboratories has got accreditation status!

SPURIOUS PRODUCTS

The regulatory environment, thus, allows poor quality/spurious products to slip through; these account for a third of the total disease-resistant seed sales. This paints research-based companies too in bad colour and affects their efforts to maintain highest standards of "quality" and "safety".

There is no gainsaying farmers are the worst sufferers. They are unable to realise the full potential of new solutions/technologies. They suffer huge damage to crop and the soil, when they use a spurious product. Their access to newer/better technologies remains restricted.

Clearly, the current set-up is far from delivering what the Indian agriculture expects from the crop protection sector to meet the challenges ahead. A complete overhaul is the need of the hour.

The Government must begin the process by announcing a long-term and stable policy; the amendments to the Insecticides Act should follow. The focus of these should primarily be to (i) grant registration only to applicants submitting complete studies on "safety" and "efficacy", and (ii) make adoption of good manufacturing practices mandatory for all units.

EDUCATE FARMERS

The provisions on quality control must be stringent and punishment handed out to the violators needs to be commensurate with the severity of violation. The Act should bring in some deterrence for law enforcers as well to prevent misuse and ensure that unscrupulous operators are reined in.

Finally, there is an urgent need for a nation-wide campaign to educate farmers on benefits of crop protection measures and adoption of GAP.

They must be enabled to remain focussed on good quality products and say 'no' to spurious stuff. The campaign should be taken up via the public-private partnership mode to deliver the best results.

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