

Newsroom

The lurking menace of weeds

Farmers' enemy No. 1



Small farmers spend half their time in the fields weeding.

11 August 2009, Rome -

Today more than a billion people in the world are hungry, the result of flawed policies mainly, but also of wars and revolutions and of natural hazards like floods, droughts, pests and diseases compounded, nowadays, by climate change.

But one huge hunger-maker lurks largely unnoticed ...

"Maybe it's because weeds are not very spectacular," says weed expert Ricardo Labrada-Romero. "Droughts, insects and diseases like Swine Flu are attention-grabbers because their effects are dramatic. Weeds are different. They play havoc quietly all year round, year after year."

Consider, he says, the damage caused by one weed alone, Broomrape (*Orobanche* spp), an aggressive root weed which attacks legumes and vegetables and can not only lead to complete crop failure but also make fields infertile for many years.

Huge production losses

Figures clearly show that weeds should be regarded as farmers' natural enemy No. 1. According to a leading environmental research organization, Land Care of New Zealand, they cause some \$95 billion a year in lost food production at global level, compared with \$85 billion for pathogens, \$46 billion for insects and \$2.4 billion for vertebrates (excluding humans).

At today's prices, \$95 billion translates into some 380 million tonnes of wheat, or more than half of world production expected in 2009. And of those \$95 billion, \$70 billion are estimated to be lost in poor countries.

Economic losses may be even greater considering that more than half of the time farmers spend in the fields is devoted to weed control, says Labrada-Romero. It follows that if farms are to increase their productivity one of the first things they must do is improve weed management.

Stagnating yields

Nowhere is this more important than in Africa, where weeds are a major cause of stagnating yields and production. "With only manual labour available, African smallholders need to weed every day and that means a family physically can't handle more than 1-1.5 hectares," Labrada-Romero explains. "But proper management would allow them to farm more land and grow more food."

Related links

[FAO Plant Production and Protection Department](#)
[AGP Publications](#)

Documents

[Soil solarization: an environmentally-friendly alternative](#)

Contact

Christopher Matthews
 Media Relations (Rome)
 (+39) 06 570 53762
christopher.matthews@fao.org

Toolbox

[Email this article](#)

[Print](#)

[Share](#)

Modern integrated weed management involves much more than spraying herbicides. Crop rotation is one effective technique because weeds are often biologically adapted to a given food crop so that changing the crop can reduce weeds too.

Also important, says Labrada-Romero, is the use of certified, quality seeds. Many of the seeds produced and used by farmers are contaminated by weed seeds. If smallholders produce their own seeds, they should be taught to clean them so as to avoid planting weeds in their fields at sowing time.

Solarization

Soil solarization, a simple non-chemical technique, can be used to control weed seeds and seedlings as well as many soil-borne pathogens and pests. Transparent polyethylene plastic placed on moist soil during the hot summer months increases soil temperatures to levels that are lethal to weeds.

And as for water weeds - a separate but very menacing threat in many parts of the world - biological control methods can be used. Introduction of specific insects native to the Amazon has, for instance, proved successful in keeping disastrous water hyacinths infestations in check.

While appropriate use of modern herbicides is necessary to meet growing demand for food, greater use of non-chemical methods is desirable not only on general environmental grounds but because herbicide resistance is increasingly becoming a problem. In the United States for example, 13 weed species are now resistant to glyphosate, the herbicide most widely used.

After two decades fighting weeds, Labrado-Romero, a 62-year-old year-old Cuban, recently went into well-deserved retirement. "But the fight against weeds must go on," he says, "otherwise more people will starve".