Ecologically-based IPM Package for wheat production in Tajikistan

An IPM package is a set of practices and technologies that can be used in production of a crop to increase yield and reduce pesticide use. The key pest problems for wheat production in Tajikistan are yellow rust (stripe rust), Sunn Pest and cereal leaf beetles. Potential IPM components to reduce these problems include:

**Disease resistant varieties**
Collaborating international and local wheat breeders have identified several wheat varieties resistant to yellow rust. These have been released for use by Central Asian farmers.

**Seeding rates**
Seeding rates are being studied to fine-tune the optimum rates for best yields.

**Planting and harvest dates**
Research indicates that planting wheat earlier in northern Tajikistan can help avoid infestation by the Sunn pest, a group of insects that damages plants and reduces yields and quality by feeding on leaves, stems, and grains. Harvesting wheat immediately after physiological maturity also reduces the effects of these pests.

**Biological control**
Native parasitoids exist for Sunn pest and cereal leaf beetle. Planting local native plants such as coriander and dill near wheat fields could provide a nectar source for the beneficial species that can reduce pest insect populations.

**Fertilizer rate and timing**
Delivering fertilizer to the plants at the right time and amount will enhance plant health and yields.

**Weed control**
Controlling weeds early before they can compete will improve wheat yields.

For more information: www.ipm.msu.edu/central-asia.htm

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