Weed Control

Weeds reduce yield and the quality of flax seed and flax straw. Weed control in flax is very important because flax is a poor competitor with weeds as it produces little shade and uses water and nutrients less efficiently compared to most weed species. A study conducted at the Morden, Manitoba research station from 1982-1985 by G.H Friesen showed that removal of weeds increased seed yields, and quality factors of oil content and iodine levels.

Early removal of weeds before the crop is 6 inches tall is better for minimizing crop losses. As well, weeds in the seedling stage are more easily controlled by herbicides and early treatment usually decreases the risk of injury to the flax crop. Risk of crop injury is also reduced by using correct water volumes, and spraying the crop into the cool of the evening and avoid applications when daytime temperatures exceed 25 degrees Celsius.

Weed seeds can also be difficult to remove and therefore are considered foreign material and cause downgrading are volunteer mustard, volunteer canola, wild oat and smartweed.

A number of new herbicides on the market can assist with the control of weeds. Please refer to the Guide to Field Crop Protection at http://www.gov.mb.ca/agriculture/crops/insects/print,guide-to-crop-protection.html

Pest Control

Flax may be attacked from emergence to maturity by various insect pests. To keep damage low, fields should be scouted regularly, and controls applied when infestations reach the economic threshold. The following species are potentially damaging but often occur in too low a number to cause economic loss.

Grasshoppers – Young grasshoppers may attack young plants and cause damage. However, more damage is done to the crop before harvest by the older, larger grasshoppers. They can quickly cause large numbers of bolls to drop by chewing through the more succulent portions of the stem below the bolls.

Cutworms – Two subterranean species of cutworms, the redbacked, pale green western, and the early cutworm, attack flax. The adult moths of these species lay eggs on the soil surface in weedy summerfallow fields during late summer. These eggs overwinter and the young larvae feed on flax seedlings in the spring. Cutworms usually remain below ground, cut off the young plants near the soil surface and draw them down where they are eaten. An average population of 12 redbacked cutworms/m2 (10/yd.2) can cause a 10% reduction in the yield of flax, and control should be considered.

Army cutworm – Larvae of the army cutworm, damage flax and many other crops by feeding on foliage in the spring, and to a lesser degree, in the fall. Populations of 10 or more larvae/m2 (9/yd.2) can cause significant damage.

Bertha armyworm – was a regular pest of flax before canola and mustard were grown on the Prairies. However, since the widespread introduction of the Brassica crops, the bertha armyworm rarely causes economic damage to weed-free flax fields. If bertha-armyworm-infested canola fields are swathed and green flax fields are nearby, the flax can then suffer significant damage from invading larvae. When abundant, bertha armyworms cause serious damage by chewing through the stems below the bolls causing them to drop to the ground. Young bertha larvae are green but larger larvae are usually velvet-black.

Beet webworm – is a slim, active, dark-green caterpillar which eats leaves, flowers and patches of bark from flax stems and branches. Localized areas can suffer severe damage. Determine if a significant number of bolls are being damaged before applying control.

Aphid – commonly occurs in flax and can significantly reduce yields This pest uses its mouthparts to pierce and extract sap from stems and leaves. If aphid densities exceed three per plant when the crop is in full bloom, or eight per plant at the green boll stage, insecticidal control is cost effective. At least 25 plants in different parts of the field should be checked for aphids to determine if the economic thresholds are exceeded. If no action is taken when aphids exceed the thresholds, 5-25% or more of the yield may be lost.

Aster leafhopper/Lygus bug – The aster leafhopper, and the lygus bug can also damage flax. These insects, like aphids, feed by sucking juices from the flax plants. Leafhoppers can carry aster yellows mycoplasm and also crinkle virus, and can infect the plants with these diseases while feeding. Tarnished plant bugs damage flax by feeding on the growing tips, which become distorted and die back. The damage from these insects is most serious on late-seeded crops.

Current recommendations for chemical control of insects of field crops are published annually in the Guide to Field Crop Protection at http://www.gov.mb.ca/agriculture/crops/insects/print,guide-to-crop-protection.html . For more information on insects and their damage, and for up-to-date information on thresholds and control, consult provincial agricultural representatives or provincial entomologists.

Labels on pesticide containers also provide essential information on application procedures and pesticide safety, and should be followed closely.

Article as posted on the Manitoba Flax Growers Association website