

## TOOLS AGAINST BLACKLEG

Canola growers who grow the crop in a tighter rotation than one in four years need to use blackleg management tools to ensure that selection pressure does not outpace canola breeding efforts to combat the disease. Data from studies in North Dakota show that blackleg pathogens are increasing in canola-growing regions around the state and that blackleg management strategies must be practiced to ensure successful canola production. Strategies include:

- Rotating canola varieties. Research in Australia and Canada has shown that blackleg can become more of a problem if only one or two varieties are grown in close proximity to the prior year's stubble of the same varieties. To maintain resistance to blackleg, use different varieties to bring a mix of resistance genes into rotation. Using the same variety could result in selection pressure since many genes are responsible for blackleg resistance and a grower does not know which type of resistance genes are bred into each different variety.
- Using canola varieties with blackleg resistance. Varieties with an "R" or "MR" rating for blackleg are strongly recommended. Rotation studies have found that blackleg severity dropped significantly when growing an R-rated hybrid compared to a susceptible variety.
- Controlling volunteer canola. Research has shown that volunteer canola and wild mustard can serve as an ideal host for blackleg in non-canola fields. Paying attention to these volunteer plants in corn, soybean or small grain crops is important. Controlling them in these crops will help to break down the disease bridge.
- Using certified seed. Using treated seed is a smart strategy to control blackleg infestations. Planting certified seed will ensure that each canola plant will have the same genes, while second generation seed may not have the same mix of resistance genes.

Considering fungicides: While two products, Quadris" and Headline", are currently registered for blackleg control in canola, research has shown little or no improvement in yield when applying a fungicide on Resistant varieties. However, fungicide applications do provide significant yield improvement when applied to susceptible varieties. The NCGA will fund fungicide efficacy studies on canola to evaluate control from existing labeled and potential new products.

Another idea is to apply a registered fungicide to the headlands of a canola field to prevent the spread of blackleg to interior portions of the field. Because blackleg spores are not carried as far as Sclerotinia spores, this strategy will protect a field from wind-blown spores from adjacent infested fields while lowering total cost by not spraying an entire field. Ongoing studies will be conducted to evaluate this strategy. Several growers have also stated that they plan to spray a registered fungicides to their entire fields in 2011 to protect against blackleg given the potential economic returns from canola in 2011 compared to prior years.