

## Canola Harvest Management

While good agronomic practices can maximize canola yields and returns, proper harvest management is essential to realizing those yields. Seed and quality losses caused by untimely harvesting, inappropriate harvesting techniques, improper handling, or some combination of these practices, can all result in reduced crop yield, value or both. Therefore, timely harvest will help maximize yield, quality and returns. Swathing involves cutting the crop and forming windrows that are laid directly on the cut stubble. This hastens crop drying rate, ensures uniform ripening, and reduces the possibility of seed losses from wind and hail. After the crop dries to uniform seed moisture content of 8 to 10% moisture (usually five to 10 days after swathing), it is may be ready for harvesting if sufficient curing has also taken place to reduce the percentage of green seed to acceptable levels.

### **The advantages of swathing canola are:**

- earlier harvest (eight to 10 days) and more uniform seed maturity - this is particularly important in fields where maturity is uneven
- earlier harvest to avoid fall frost and accelerate dry down, especially in short season areas
- earlier harvest to allow for double cropping or fall seeding of subsequent crops (e.g. winter wheat)
- more flexibility for time of harvest with a large acreage since canola typically retains its quality in the swath better than other crops (e.g. cereals), making the timing of harvest less critical
- reduced shatter losses during the harvest operation - especially in crops infected with Alternaria
- swathing can be done around the clock (unlike direct combining) which assists with the harvesting of large acreages
- cutting weeds allows a cleaner and drier sample that will reduce the risk of heating in storage and reduce the number of weed seeds that reach maturity

### **The advantages of straight combining are:**

- Reduces manpower, fuel use and equipment requirement
- May increase seed size and yield
- May increase oil content
- Potential green seed reduction

Carefully assess each canola field to determine the suitability for swathing versus direct combining. In western Canada, *B. napus* canola is generally swathed because it tends to not ripen evenly and may sustain pod split and pod drop, and shattering losses if direct combined. *B. napus* can be direct combined with or without a desiccant or pod sealant. Swathing is the standard harvest approach for most canola producers. Some conditions which make swathing the preferred method include:

- Immature crop with imminent frost
- Uneven crop maturity
- Problems with green weed undergrowth or crop re-growth
- Reduced effects of alternaria black spot
- Reduced risk of shattering losses

The CCC advises growers to assess each canola crop carefully before choosing straight cutting, based on four factors. <sup>[1]</sup>

- **Crop canopy** – The crop should be well knitted and slightly lodged to reduce potential seed loss through pod shelling and drop. If a large proportion of the plants appear to move independently in the wind, they will be at higher risk for shattering loss as the plants senesce and dry down. The plant stand should be thick (hard to walk through). Pod integrity can be affected by frost, drought and insect damage. A uniform crop with minimal green weed growth is also a huge advantage when straight cutting.
- **Disease** – The crop should be relatively free from blackleg, fusarium wilt, sclerotinia and alternaria, as these diseases can result in premature ripening, causing the crop to be prone to pod shatter.
- **Hail**- Crops affected by hail are poor candidates for straight cutting because the physical damage reduces pod integrity and they normally see greater disease infection. If late season hail is common in a certain area, growers should keep in mind that hail will typically cause more damage to a standing crop than a swathed crop.
- **Frost risk** – Canola seed is at significant risk for fall frost damage until seed moisture drops below 20%. This moisture drop will take much longer in a standing crop, and as such, late maturing crops are poor candidates for straight cutting. They will be much more vulnerable to yield loss, and to downgrading from frost damage when standing.

### **Additional considerations include:**

- Short, severely lodged, or excessively branched canopies may be candidates as well, because if swathed there would be minimal stubble left to anchor the swaths from moving with wind. In this situation growers should consider the potential for wind damage to the swath relative to shattering risk if left standing.
- Appropriate combine equipment with experienced operations and settings.
- Varieties with increased shattering tolerance and lodging resistance.

Source:

<https://www.canolacouncil.org/canola-encyclopedia/managing-harvest/harvest-management/>