

# Intercropping canola and peas

For expanding crop options, Harro Wehrmann, a cash crop farmer from Ripley, Ontario, has a novel suggestion.

Since 1988, Wehrmann has intercropped winter canola with Austrian winter peas. Winter canola is the main cash crop and does well in this area (Bruce County) which is rated at 2750 corn heat units.

Wehrmann was interested in a different nitrogen-fixing cover crop, citing that he doesn't like red clover because generally it has to be plowed under in the fall and fall planted hairy vetch does not grow vigorously enough in the autumn for sufficient ground cover over winter. So, he tried Austrian winter peas which fix nitrogen to be used either by the main crop (canola) or the following crop in the rotation (winter wheat).

The canola and peas should be planted by September 1 st, with the optimum seeding date being between August 25-30. The interseeding usually follows a spring grain or a winter cereal and to ensure good emergence of the canola, little straw residue should remain. The ground is chisel-plowed and packed to create a fine, firm seedbed. The Austrian winter peas are broadcast first at 60 lb/ac, then followed by the winter canola, drilled in at 3 lb/ac.

One concern is to make sure that the peas have enough space to grow and become well-established before winter. At 3 lb/ac, there is anywhere between 60 to 80 canola plants/m<sup>2</sup>, which ensures a good stand of peas before winter.

The canola acts as structural support for the peas, although through most of the spring it is hard to see the peas from under the broadleaved canola. As the canola flowers, all that can be seen is a canopy of yellow for 3 weeks, and it is not until the end of June or beginning of July that you can actually see the variegated purple flowers of the peas. The peas flower for about 3 to 4 weeks and both canola and peas are ready to harvest by the first of August.

The crop is straight-combined and the combine setting should be geared more to the peas than the canola, mainly because the peas are below the canola pods.

Peas are usually a week later in maturity than canola, but they dry down comparatively quicker. Wehrmann generally receives yields of 1 tonne/ac of winter canola and 1 tonne/ac of peas under this management system, with some years producing slightly higher canola yields. Wehrmann uses his own seed cleaner to separate the canola and peas. The canola is sold while the peas are used for his intercropping acreage.

In 1990, Wehrmann planted 15 acres to this interseeding. Of his 600 acre cash crop farm, he grows 150 to 170 acres of canola, while the rest is in spring and winter cereals. On-farm cycling of nitrogen is perhaps the greatest benefit of such a system and Wehrmann is confident about the future of canola and peas on his farm. Wehrmann has been farming parts of his 600 acre farm organically since he began farming in Ontario five years ago. With other brassica cover crops, such as oil radish, Wehrmann cautions that planting canola too close in the rotation to oil radish can lead to fungal problems such as club-root.

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