# Fact Sheet
# Volunteer Canola
# Expected and Controllable

"Volunteers" (a plant that grows on its own, rather than being deliberately planted by a human) can happen because seeds can be transported by the wind, spilled from vehicles transporting grain or seed or dropped by birds.

This phenomenon is not biotech-specific, because this can occur with conventional varieties of plants too. It is not unusual to observe volunteer populations of canola along roadsides adjacent to fields or where grain and seeds are frequently transported.

**Research Claims "Wild" Canola:**
In an August 6, 2010 news release, the Ecological Society of America (www.esa.org) alleges that researchers "have discovered the first evidence of established populations of genetically modified plants [specifically, canola] in the wild."

**Canola Growers Respond:**
A statement from the U.S. Canola Association says in part:

***"Because 85 to 90 percent of the U.S. and Canadian canola crop is grown from biotech seeds, we would expect the same percentage to be reflected in volunteer canola. As with conventional canola production, it is not unusual or concerning that volunteer biotech canola was found on roadsides due to occasional seeds being misplaced during transport or harvesting."***

*Barry Coleman, executive director of the Northern Canola Growers Association and canola grower in North Dakota*

## Key Points

- "Volunteers" (a plant that grows on its own, rather than being deliberately planted by a human) can happen with both conventional and biotech plant varieties. Not surprisingly then, this is not the first time that this has been observed.
- There is no evidence to indicate that herbicide-tolerant varieties of canola are more invasive or more persistent in disturbed habitats than their conventional counterparts.
- Because about 90 percent of the U.S. and Canadian canola crop is biotech, it is reasonable to expect a survey of roadside canola to show similar prevalence of biotech plants.

- Canola, whether genetically engineered or conventional, **does not survive well in the wild.** Therefore in the case of seed/grain spillage, the seed may germinate and grow, but will not be able to compete with other plants well enough to establish actual populations of canola.
  - It is unlikely that the populations will establish for multiple generations to allow for any significant gene flow to occur.
  - Unless the habitat is regularly disturbed, or seeds are replenished from outside, canola will be displaced by other plants.
- When biotech canola was originally evaluated by the U.S. Department of Agriculture (USDA) and Canadian Food Inspection Agency (CFIA), they recognized that like traditional canola, biotech canola would volunteer and might require management in some areas.
  - The USDA found no evidence that biotech canola would be more apt than traditional canola to outcompete other plant species.
  - The agencies also considered the possibility that canola would breed with other species. The CFIA concluded that such crosses would not be invasive, nor result in increased weediness or invasiveness, and could be managed by current agronomic practices.
- Volunteer canola can be considered a weed in agricultural situations, but it is not considered an invasive species in these habitats as its dissemination normally results from seed spillage during harvest and transport operations.
- Long-term scientific studies have concluded that, in the event of dispersal from their cultivated habitat, genetically engineered plants are no more invasive nor more persistent than their conventional counterparts.
- No definition of feral or “persistent” is explained by the authors, therefore it is difficult to know whether the canola plants found in the roadsides were actually feral canola, which can occur, or the more plausible agricultural canola.
- The authors do not describe any work performed (e.g. molecular markers) to determine whether the canola was truly wild, or whether it was the result of a grain spillage situation.
- Cross-pollination of canola plants in adjacent fields can occur, therefore it is feasible that some grain harvested from the edge of a field could contain the trait planted and a trait from the adjacent field. If such grain was accidentally spilled in a roadside ditch, it is possible for germination to occur, thus resulting in the detection of plants with both RR and LL traits.
- The authors’ conclusions are rather wide-reaching considering such limited data is actually presented (no figures are shown, and only 1 year of data was collected).
  - Having “established” or “persistent” populations would mean that those populations were present multiple years. However the authors only present limited results collected in June-July 2010.

## For More Information


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