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## Weeds, Pests, & Diseases

## **Weed Management**

**Disclaimer**: Always follow registered uses and product label directions using canola as the application reference for carinata.

# What are the pre- and post-emergent herbicide applications recommended for carinata?

### Pre-plant emergence

| Herbicide     | Trade<br>Name | Weeds                           | Rate   |
|---------------|---------------|---------------------------------|--|
| Ethalfluralin | Sonalan       | Broadleaf<br>and grass<br>weeds | Depending on soil texture: Coarse 1.72 lb ai/a Medium 2.34 lb ai/a; Fine 3.0 lb ai/a |
| Trifluralin   | Treflan       | Broadleaf<br>and grass<br>weeds | Depending on soil texture: Coarse 0.5 lb ai/a; Medium 0.75 lb ai/a Fine 1.0 lb ai/a  |

## Post-plant emergence (2 to 6-inch weeds)

| Herbicide        | Trade Name         | Weeds       | Rate                |
|------------------|--------------------|-------------|---------------------|
| Clethodim        | Select Max, Shadow | Grass weeds | up to 0.091 lb ai/a |
| Sethoxydim       | Poast              | Grass weeds | up to 0.47 lb ai/a  |
| Quizalofop-ethyl | Assure II          | Grass weeds | up to 0.082 lb ai/a |

#### What herbicides can be used for burndown?

| Herbicide               | Trade<br>Name        | Weeds   | Rate                                   |
|-------------------------|----------------------|---|--|
| Carfentrazone-<br>ethyl | Aim EC               | Broadleaf weeds                                     | up to 2.0 fl<br>oz/a; 0.031 lb<br>ai/a |
| Glufosinate             | Liberty 280<br>SL    | Most annual broadleaf and grass weeds               | 29–36 fl oz/a                          |
| Glyphosate              | Roundup and others   | Most annual and perennial broadleaf and grass weeds | up to1.55 lb<br>ae/a                   |
| Paraquat                | Gramoxone and others | Most annual broadleaf and grass weeds               | 2.5–4 pt/a                             |

## What herbicides can be used for broadleaf?

| Herbicide               | Trade<br>Name         | Weeds  | Rate  | Timing                |
|-------------------------|-----------------------|--|---|-----------------------|
| Carfentrazone-<br>ethyl | Aim EC                | Broadleaf  | up to 2.0 fl oz/a;<br>0.031 lb ai/a   | Preplant<br>burndown  |
| Glufosinate             | Liberty 280<br>SL     | Most annual broadleaf and grass weeds                              | 29-36 fl oz/a   | Preplant<br>burndown  |
| Glyphosate              | Roundup<br>and others | Most annual<br>and<br>perennial<br>broadleaf<br>and grass<br>weeds | up to1.55 lb ae/a   | Preplant<br>burndown  |
| Paraquat                | Gramoxone and others  | Most annual broadleaf and grass weeds                              | 2.5–4 pt/a  | Preplant<br>burndown  |
| Ethalfluralin           | Sonalan               | Broadleaf<br>and grass<br>weeds                                    | Depending on<br>soil texture:<br>Coarse 1.72 lb<br>ai/a Medium 2.34<br>lb ai/a; Fine 3.0<br>lb ai/a | Preplant<br>emergence |
| Trifluralin             | Treflan               | Broadleaf<br>and grass<br>weeds                                    | Depending on<br>soil texture:<br>Coarse 0.5 lb<br>ai/a; Medium<br>0.75 lb ai/a Fine<br>1.0 lb ai/a  | Preplant<br>emergence |

#### How do I control wild radish in carinata?

Wild radish can be difficult to control in carinata. If you struggle with wild radish in a specific field consider not planting carinata in those fields. A good rule of thumb is over 10% wild radish in a field is too much. Significant wild radish contamination in carinata seed will result in penalties to the grower.

### **Disease Management**

## What fungicides are registered for carinata currently?

Currently, fungicides registered for Sclerotinia stem rot control are in the triazole, ergosterol biosynthesis inhibitor, and carboxamide fungicide groups. See table below.

#### What diseases should I watch out for?

Sclerotinia stem rot is the disease mostly likely to cause significant yield loss in carinata. A two year out rotation of carinata with winter small grains such as rye, oats, and wheat along with ryegrass or clean winter fallow will reduce the occurrence of stem rot in subsquent carinata crops.

## What is the recommendation for managing Sclerotinia stem rot in carinata?

Fungicides are an option for controlling stem rot in carinata. The first broadcast application of a recommended fungicide should be made at 20 to 50% bloom. Depending on the fungicide and weather patterns, a second application may be made approximately 14 days after first application. Field trial results suggest that only one application is needed to obtain optimal yield protection with little or no improvement in stem rot control with the second application.

## What rates should I use for fungicides on carinata?

The table below outlines registered fungicides and insecticides for canola on product label guidelines in Florida. Always read and follow label instructions before use.

| Fungicide  | Disease                                      | Timing  | Rate                    |
|--|--|---|-------------------------|
| Aproach (Picoxystrobin)                              | Alternaria black spot, Sclerotinia stem rot  | Varies according to target disease— see label     | 6 to<br>12<br>oz/ac     |
| Endura (Boscalid)                                    | Sclerotinia stem rot                         | 20 to 50% flowering, or prior to onset of disease | 5 to 6<br>oz/ac         |
| Quash (Metconazole)                                  | Sclerotinia stem rot                         | 20 to 50% flowering, or prior to onset of disease | 2 to 4<br>oz/ac         |
| Priaxor Xemium<br>(Fluxapyroxad +<br>Pyraclostrobin) | Alternaria black spot, Sclerotinia stem rot* | Varies according to target disease— see label     | 4 to 8<br>oz/ac         |
| Proline<br>(Prothioconazole)                         | Sclerotinia stem rot                         | 20 to 50% flowering, or prior onset of disease    | 4.3 to<br>5.7<br>oz./ac |
| Quadris<br>(Azoxystrobin)                            | Alternaria black spot, Sclerotinia stem rot  | Varies according to target disease— see label     | 6 to<br>15.5<br>oz./ac  |
| Tilt (Propiconazole)                                 | Alternaria black spot                        | Prior to bolting                                  | 2.6 to<br>4<br>oz/ac    |

## \*Supression Only

| Fungicide  | Pest  | Timing                        | Rate                 |
|--|---|-------------------------------|----------------------|
| Coragen<br>(Chlorantraniliprole)                         | Diamondback moth                                  | Apply as required by scouting | Varies —see label    |
| Mustang Maxx, Mustang<br>Maxx EC (Zeta-<br>cypermethrin) | Aphid, cutworm,<br>diamondback moth,<br>stink bug | Apply as required by scouting | Varies —see label    |
| Prevathon<br>(Chlorantraniliprole)                       | Diamondback moth, cutworm, armyworm               | Apply as required by scouting | 14 to<br>20<br>oz/ac |
| Intrepid (Methoxyfenozide)                               | Many insects—see label                            | Apply as required by scouting | 2 to 24<br>oz/ac     |

## **Additional Resources**

Carinata Production Manual
Journal Articles, Factsheets, & Helpful Websites
Nuseed Carinata Contract Production
Contact the SPARC Team