

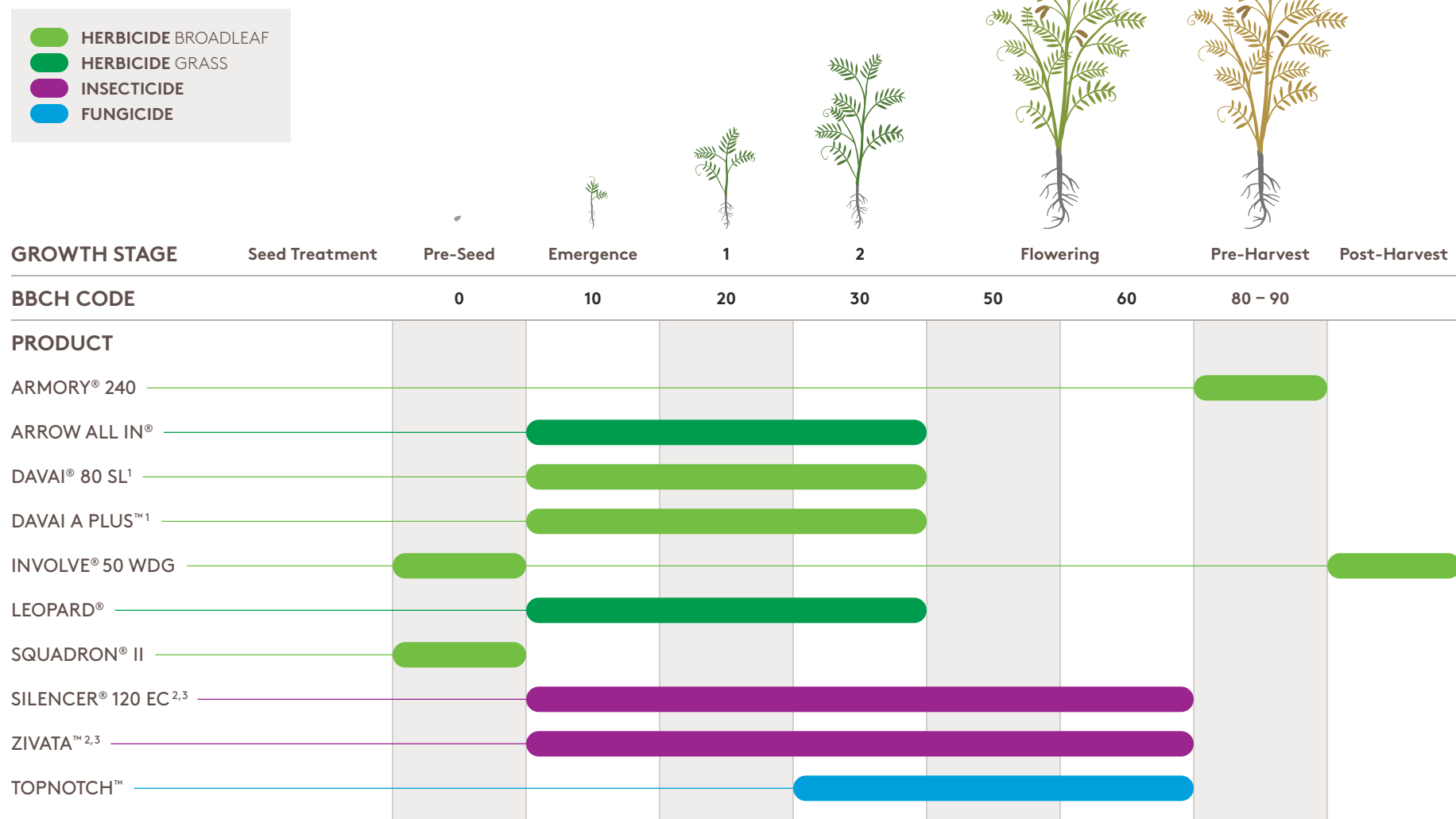


WE ARE

All In  
on lentils



# LENTILS GROWTH STAGES



<sup>1</sup>Imidazolinone-tolerant lentils only (also known as Clearfield® lentils)

<sup>2</sup>Dependent on Pre-harvest Interval (PHI)

<sup>3</sup>DO NOT cut treated field for hay/forage. DO NOT graze treated fields. DO NOT feed treated crops to livestock. DO NOT use more than 3 applications per season.

Timing based on using the product alone. Please refer to tank-mix partner labels for crop timing.

# DAVAI® 80 SL

Proven broadleaf and grassy weed control in a convenient package that allows for flexible tank-mix options.

**USE ON IMI-TOLERANT LENTILS\* ONLY**



## KEY BENEFITS:

- Broad-spectrum control of targeted broadleaf weeds and grasses
- Rotational flexibility
- Registered for multiple crops including imidazolinone-tolerant lentils\*, peas, dry beans and soybeans
- Easily tank mixed with graminicides to customize your weed control by field
- No complicated grower program to manage

## HOW IT WORKS:

DAVAI® 80 SL is readily absorbed through both leaf and root uptake, and it is translocated in the plant to inhibit amino acid production and cell division. Plant growth is inhibited, and a few days after application, chlorosis and terminal bud injury become evident. Leaves and stems become yellow and purple, and root growth may be inhibited. Crop competition is quickly reduced, although complete plant death is relatively slow.

## ACTIVE INGREDIENT:

Imazamox 80 g/L = SL

## APPLICATION RATES AND ACRES TREATED:

- Rate: 100 ml/ac
- Acres Treated: 80 ac/jug

## PACKAGING:

- Case: 2 × 8 L jugs

## WATER VOLUME:

- Ground: 40 L/ac (10 US gal/ac)
- Aerial: Do not apply.

## WEEDS CONTROLLED:

**Broadleaf weeds: cotyledon – 4 leaf; Grasses: 1 – 4 true leaf:**

- |                                     |  |
|-------------------------------------|--|
| • Barnyard grass                    | • Stork's bill                                 |
| • Cleavers <sup>1</sup>             | • Volunteer barley                             |
| • Cow cockle                        | • Volunteer canary seed                        |
| • Flixweed                          | • Volunteer canola                             |
| • Green foxtail                     | • Volunteer canola (non-Clearfield® varieties) |
| • Green smartweed                   | • Volunteer tame oats                          |
| • Japanese brome grass <sup>1</sup> | • Volunteer wheat                              |
| • Lamb's quarters                   | • Wild buckwheat <sup>1</sup>                  |
| • Persian darnel                    | • Wild mustard                                 |
| • Redroot pigweed                   | • Wild oats                                    |
| • Shepherd's purse                  | • Yellow foxtail                               |
| • Stinkweed                         |  |

<sup>1</sup>Suppression

### CROP STAGING:

Crop	Stage
Imidazolinone-tolerant lentils*	1 – 9 node

### CROP ROTATIONS:

- Barley
- Canary seed
- Canola
- Chickpeas
- Corn
- Field peas
- Flax
- Lentils
- Oats
- Soybeans
- Clearfield® sunflowers
- Wheat (spring, durum)

There are several factors that effect the recropping following an imidazolinone application. These include in order of importance:

- 1. Product:** With imazethapyr for example being more persistent than imazamox.
- 2. Soil moisture:** Need > 125 mm (5") of rain between herbicide application and August 31 in the year of application.
- 3. Organic matter:** Brown soil zone (< 3% organic matter) are more susceptible to carry over crop injury the year after application.
- 4. Rate:** As affected by the crop – soil residues are the issue.
- 5. Soil pH:** Persists longer in a pH < 5.5 – 6.

Depending on the following crop the level of sensitivity will vary. Please contact your local ADAMA ABM for more details.

### PRE-HARVEST INTERVAL:

60 days

\*IMI-tolerant lentils are also known as Clearfield® lentils.

# DAVAI A PLUS™

DAVAI® 80 SL conveniently packaged with ARROW ALL IN® the leading grass control product in pulses.

USE ON IMI-TOLERANT LENTILS\* ONLY



## KEY BENEFITS:

- Another choice for Canadian pulse growers
- Freedom to use on imidazolinone-tolerant lentils\*, field peas, soybeans and dry beans
- Two modes of action for resistance management
- Many options for rotational crops including canola, pulses and cereals
- Built-in adjuvant, for convenience
- Reliable control of a wide spectrum of tough grasses and targeted broadleaf weeds
- No complicated grower programming

## HOW IT WORKS:

DAVAI A PLUS™ combines 2 actives to tackle broadleaf and grassy weeds. See DAVAI® 80 SL and ARROW ALL IN® for more information.

## ACTIVE INGREDIENT:

Imazamox 80 g/L = SL; Clethodim 120 g/L = EC

## APPLICATION RATES AND ACRES TREATED:

- Rate: ARROW ALL IN®: 150 ml/ac; DAVAI® 80 SL: 100 ml/ac
- Acres Treated: 40 ac/case

## PACKAGING:

- Case: DAVAI® 80 SL: 4 L jug; ARROW ALL IN®: 6 L jug

## WATER VOLUME:

- Ground: 40 L/ac (10 US gal/ac)
- Aerial: Do not apply.

## RAINFASTNESS:

3 hours

## WEEDS CONTROLLED:

**Broadleaf weeds: cotyledon – 4 leaf; Grasses: 1 – 4 true leaf:**

- |                                     |                               |
|-------------------------------------|-------------------------------|
| • Barnyard grass                    | • Stinkweed                   |
| • Cleavers <sup>1</sup>             | • Stork's bill                |
| • Cow cockle                        | • Volunteer barley            |
| • Crabgrass (smooth, large)         | • Volunteer canary grass      |
| • Fall panicum                      | • Volunteer canary seed       |
| • Flixweed                          | • Volunteer canola            |
| • Green foxtail                     | • (non-Clearfield® varieties) |
| • Green smartweed                   | • Volunteer cereals           |
| • Japanese brome grass <sup>1</sup> | • (barley, oats, wheat)       |
| • Lamb's quarters                   | • Volunteer corn              |
| • Persian darnel                    | • Wild buckwheat <sup>1</sup> |
| • Proso millet                      | • Wild mustard                |
| • Quack grass <sup>1</sup>          | • Wild oats                   |
| • Redroot pigweed                   | • Witch grass                 |
| • Shepherd's purse                  | • Yellow foxtail              |

<sup>1</sup>Suppression

### CROP STAGING:

Crop	Stage
Imidazolinone-tolerant lentils*	1 – 9 node

### CROP ROTATIONS:

- Barley
- Canary seed
- Canola
- Chickpeas
- Corn
- Field peas
- Flax
- Lentils
- Oats
- Soybeans
- Clearfield® sunflowers
- Wheat (spring, durum)

There are several factors that effect the recropping following an imidazolinone application. These include in order of importance:

1. **Product:** With imazethapyr for example being more persistent than imazamox.
2. **Soil moisture:** Need > 125 mm (5") of rain between herbicide application and August 31 in the year of application.
3. **Organic matter:** Brown soil zone (< 3% organic matter) are more susceptible to carry over crop injury the year after application.
4. **Rate:** As affected by the crop – soil residues are the issue.
5. **Soil pH:** Persists longer in a pH < 5.5 – 6.

Depending on the following crop the level of sensitivity will vary. Please contact your local ADAMA ABM for more details.

### PRE-HARVEST INTERVAL:

60 days

\*IMI-tolerant lentils are also known as Clearfield® lentils.

PRODUCT NAME Active Ingredient
Group
Replaces
Case Package Size Acres Treated
Crop Staging
Key Weeds Controlled
Staging
Tank-Mix Options
Rate (when used alone)
Rainfastness
Mixing Instructions
Re-Entry Period
Pre-Harvest Interval
Additional Info

HERBICIDES		
ARMORY® 240 Diquat	ARROW ALL IN® Clethodim	INVOLVE® 50 WDG Tribenuron-methyl
22	1	2
Reglone®	Select®, Centurion®, Shadow®	Express® SG
Case: 2 × 10 L jugs Bulk: 120 L drums 7 – 28 ac/jug, 83 – 333 ac/drum	Case: 2 × 6 L jugs Drum: 96 L 20 – 60 ac/jug, 640 acres/drum	Case: 10 × 480 g bottles 80 ac/bottle, 800 ac/case
Apply ARMORY® 240 at the time swathing would normally commence. This is when the lowermost pods are yellow-brown and rattle.	Any	Pre-seed and post-harvest
–	Barnyard grass, Foxtail (green, yellow), Quack grass, Volunteer cereals, Wild oats	Annual sunflower, Canada thistle (top growth control), Cow cockle, Flixweed (fall rosettes, spring seedlings), Kochia (2 – 10 leaf), Lamb’s quarters, Narrow-leaved hawk’s beard (fall rosettes, spring seedlings, Prickly lettuce, Redroot pigweed, Russian thistle, Shepherd’s purse (fall rosettes, spring seedlings), Sweet clover, Wild mustard, Wild buckwheat <sup>1</sup>  <sup>1</sup> Suppression only.
–	2 – 6 leaf	Refer to registered label for complete list of weeds controlled and appropriate weed staging.
Aim® E, Agral® 90, LI 700®, Liberate®	DAVAI® 80 SL	Aim® EC, Glyphosate
Ground: 500 – 690 ml/ac Aerial: 690 – 930 ml/ac	Light infestations: 100 ml/ac Moderate infestations: 150 ml/ac Quack grass: 300 ml/ac	6g/ac
30 minutes	1 hour	Avoid if heavy rain is in the forecast.
1. ARMORY® 240 2. Add Agral® 90 adjuvant @ 0.1% v/v or LI 700® @ 0.25% v/v	1. Tank-mix partner 2. ARROW ALL IN®	1. INVOLVE® 50 WDG 2. Tank-mix partner 3. Surfactant
12 hours	12 hours	12 hours
–	60 days	–
Best results are made when applied under cloudy conditions or in the evening.	Adjuvant built into the formulation.	Activity of the herbicide mixture may be delayed by cold, dry conditions after application.

## HERBICIDES

**LEOPARD®**  
Quizalofop-P-ethyl

1

**Assure® II**

**Case: 2 × 7.8 L jugs**  
40 ac/jug (standard rate)

Any

Barnyard grass, Downy brome, Fall panicum, Foxtail barley, Green foxtail, Japanese brome, Old witchgrass, Proso millet, Quack grass (suppression at lower rates, control at higher rates), Volunteer cereals (wheat, barley, oats), Volunteer corn, Wild oats, Yellow foxtail

Check label as weed stage controlled by LEOPARD® varies.

**DAVAI® 80 SL**

150–290 ml/ac

1 hour

1. LEOPARD®  
2. Tank-mix partner  
3. Surfactant

12 hours

65 days

LEOPARD® is safe on the crop at all stages, rates are dependent on weed stages.

**SQUADRON® II**  
75% Metribuzin = WDG

5

**Sencor®**

**Case: 4 × 5 kg bottles**  
45–90 acres/bottle

Pre-seed incorporation (fall only)  
Post-emergent: Lentil vines must be less than 6 inches long or in the 3 to 5-node stage at the time of application

Ball mustard, Common chickweed, Corn spurry, Green smartweed, Hempnettle, Lamb's quarter, Stinkweed, Tartary buckwheat, Volunteer non-triazine tolerant canola, Wild mustard

Annual broadleaf weeds (less than 5 cm in height)

Lentils (pre-seed incorporated): Treflan™ EC, Dual II Magnum®, Frontier®, Linuron, Trifluralin

One OR two post-emergent, incorporated applications (fall):  
· One application: 110 g/ac  
· Two applications: 55–80 g/ac

6 hours

1. SQUADRON® II  
2. Tank-mix partner

12 hours

70 days

Lentils may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, SQUADRON® II alone may not provide adequate suppression due to regrowth of some weeds.



Always read and follow label directions.



# SILENCER® 120 EC

Most trusted active ingredient used in Western Canada to control a wide range of insects.



## HOW IT WORKS:

Fast-acting stomach and contact insecticide.

## ACTIVE INGREDIENT:

Lambda-cyhalothrin 120 g/L = EC

## APPLICATION RATES AND ACRES TREATED:

- Rate: 17 – 94 ml/ac; standard rate: 34 ml/ac
- Acres Treated: 40 – 220 ac/jug; standard rate: 110 ac/jug
- Standard rate is applicable for most pests; refer to label for more information.

## PACKAGING:

- Case: 4 x 3.785 L jugs

## WATER VOLUME:

- Ground: 40 – 80 L/ac (10 – 20 US gal/ac)
- Aerial: 4 – 16 L/ac (1 – 4 US gal/ac)

## RAINFASTNESS:

1 hour

## APPLICATION TIMING AND CROP STAGING:

Crop	Insect	Rate	Application Timing
Lentils	Soybean aphid <sup>1</sup> , Pea aphid <sup>1</sup> , Bean aphid <sup>1</sup>	34 – 94 ml/ac	Refer to label for more information.
	Western bean cutworm <sup>2,3</sup>	34 – 75 ml/ac	
	Grasshoppers, Lygus bugs, Potato leaf hopper, Cutworms <sup>2</sup>	34 ml/ac	

<sup>1</sup>For aphids, use the higher rate when conditions favour rapidly increasing aphid populations. Repeat sprays at 7-day intervals depending on the presence of significant populations as determined by local monitoring. Provincial soybean aphid management guidelines suggest applying insecticide during the flowering growth stage of soybean development.

<sup>2</sup>Cutworm activity is greatest during the late evening and night. Application of SILENCER® 120 EC insecticide should be timed as close as possible to insect feeding activity.

<sup>3</sup>For western bean cutworm control, repeat sprays at 4–7 day intervals. Consult local agricultural personnel and provincial guidelines on the use of this product.

## PRE-HARVEST INTERVAL:

21 days

## GRAZING RESTRICTIONS:

**DO NOT** cut treated field for hay/forage. **DO NOT** graze treated fields. **DO NOT** feed treated crops to livestock. **DO NOT** use more than 3 applications per season.

# ZIVATA™

An innovation in insect control giving you the same trusted results in a more sustainable formulation with a better user experience.


**Low VOC**

FORMULATION TECHNOLOGY

## HOW IT WORKS:

ZIVATA™ is a synthetic pyrethroid insecticide formulated with an improved, plant-based solvent that offers fast-acting stomach and contact effects against a broad spectrum of insect pests. This renewably sourced formulation has low volatile organic properties and improves the user experience with a reduced drift potential and product volatility.

## ACTIVE INGREDIENT:

Lambda-cyhalothrin 120g/L as an EC

## APPLICATION RATES AND ACRES TREATED:

- Rate: 17 – 94 ml/ac; standard rate for most pests: 34 ml/ac
- Acres Treated: 45 – 240 ac/jug; standard rate: 120 ac/jug

## PACKAGING:

- Case: 2 x 4.08 L jugs

## WATER VOLUME:

- Ground: 40 – 80 L/ac (10 – 20 US gal/ac)
- Aerial: 4 – 16 L/ac (1 – 4 US gal/ac)

## RAINFASTNESS:

1 hour

## APPLICATION TIMING AND CROP STAGING:

Crop	Insect	Rate	Application Timing
Lentils	Soybean aphid <sup>1</sup> , Pea aphid <sup>1</sup> , Bean aphid <sup>1</sup>	34 – 94 ml/ac	Refer to label for more information.
	Western bean cutworm <sup>2,3</sup>	34 – 75 ml/ac	
	Grasshoppers, Lygus bugs, Potato leaf hopper, Cutworms <sup>2</sup>	34 ml/ac	

<sup>1</sup>For aphids, use the higher rate when conditions favour rapidly increasing aphid populations. Repeat sprays at 7-day intervals depending on the presence of significant populations as determined by local monitoring. Provincial soybean aphid management guidelines suggest applying insecticide during the flowering growth stage of soybean development.

<sup>2</sup>Cutworm activity is greatest during the late evening and night. Application of ZIVATA™ insecticide should be timed as close as possible to insect feeding activity.

<sup>3</sup>For western bean cutworm control, repeat sprays at 4–7 day intervals. Consult local agricultural personnel and provincial guidelines on the use of this product.

## PRE-HARVEST INTERVAL:

21 days

## GRAZING RESTRICTIONS:

**DO NOT** cut treated field for hay/forage. **DO NOT** graze treated fields. **DO NOT** feed treated crops to livestock. **DO NOT** use more than 3 applications per season.



Always read and follow label directions.

# TOPNOTCH™

Broad spectrum disease control.



## HOW IT WORKS:

Used as both a curative and preventative fungicide, TOPNOTCH™ has broad-spectrum, systemic and contact activity.

## ACTIVE INGREDIENTS:

Azoxystrobin 143 g/L and Propiconazole 124 g/L = SC

## APPLICATION RATES AND ACRES TREATED:

- Rate: 210 – 620 ml/ac
- Acres Treated: 14 – 40 ac/jug

## PACKAGING:

- Case: 2 x 8.6 L jugs

## WATER VOLUME:

- Ground: 40 L/ac (10 US gal/ac)
- Aerial: 20 L/ac (5 US gal/ac)

## RAINFASTNESS:

Avoid applying when heavy rainfall is in the forecast.

## APPLICATION TIMING AND CROP STAGING:

Crop	Disease	Application Timing	Rate
Lentils	Mycosphaerella blight, Anthracnose	Make the first application at the first sign of disease. Apply the high rate only under conditions of high disease pressures. A second application 14 days later may be needed if conditions persist. Good spray coverage and canopy penetration are important for best results.	310 – 620 ml/ac
	Powdery mildew, White mould (suppression only)		310 ml/ac

See label for additional crop information.

## PRE-HARVEST INTERVAL:

30 days

## GRAZING RESTRICTIONS:

30 days

# Where has all the innovation gone?

While many crop protection companies have turned their attention to the development of seed technologies and collecting “big data”, only ADAMA remains unapologetically committed to providing the kind of innovative crop protection solutions Canadian growers need today.



WE ARE

**Agile  
Innovation**

Filling the innovation void with unique mixtures and formulations.



WE ARE

**Active  
Ingredients**

Leveraging the world's largest library of actives to speed up the pace of innovation.



WE ARE

**All About  
Input**

Listening to growers to ensure we're answering their greatest needs.



WE ARE

**Agri-Retail  
Inclusive**

Partnering with retailers to deliver greater value to them and their customers.

WE ARE

**All In  
on you**



ADAMA



How can you inspire more innovation? Simply tell your ADAMA representative what you're looking for or visit [ADAMA.COM](http://ADAMA.COM)



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