

HERBICIDE

# Clethodim 120g/l

A post-emergence graminicide for use in oilseed rape and sugar beet



- Wide spectrum against annual grass weeds
- The market benchmark in post-emergence grass weed herbicides, uniquely effective on *Poa annua*
- Essential for difficult-to-control weeds such as Alopecurus, and grass weeds resistant to 'fops'.





Selective, post-emergence grass herbicide providing broad-spectrum control of annual grasses, with excellent selectivity on broadleaved crops such as winter oilseed rape and sugar beet. Highly effective against perennial and annual grasses including those resistant to 'fops'.



#### MODE OF ACTION

Clethodim inhibits meristematic activity and acts by disrupting lipid biosynthesis. Lipids are important cell membrane constituents. In susceptible plants the herbicide binds to the enzyme Acetyl CoA Carboxylase, which is necessary for lipid biosynthesis. The herbicide is translocated in the plant and accumulates in meristematic regions.

## The primary symptoms in susceptible grasses include:

- Cessation of growth within seven days of application
- Plant tissue at the growing point slowly turns brown and rots
- Newly-formed leaves become yellow (chlorotic) and slowly die
- As older leaves die, they show color change to orange, red and purple

## **GENERAL APPLICATION**

Apply clethodim post-emergence to actively growing weeds before they are covered by the crop. Prior application of a graminicide (e.g. quizalofop-P-tefuryl) can improve grass control by first removing volunteers so the target weeds are more exposed where the Clethodim is applied.

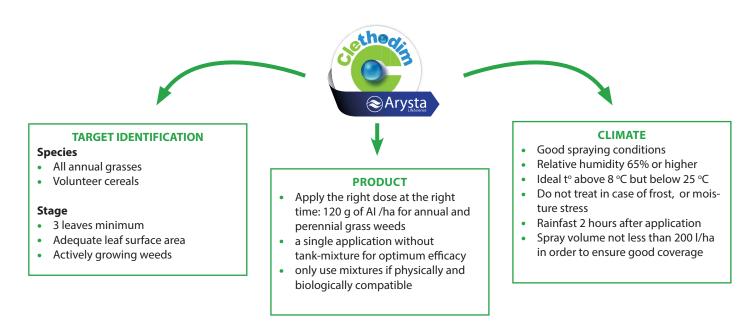
• **Annual grasses:** from 3 leaf to 2 tillers

The product only acts on weeds that have emerged at the time of treatment. Only one application is authorised per crop and per year.

### **FORMULATION**

• 120g/l EC: Built-in adjuvant formulation. No tank-mix adjuvant required.

# ARYSTA RECOMMENDATIONS FOR OPTIMUM EFFICACY WITH CLETHODIM



# **COMPATIBILITY\*:**

|             | Oil seed rape | Sugar beet  |
|-------------|---------------|-------------|
| Insectic.   | Pyrethroids   | Pyrethroids |
|             | Thiacloprid   |             |
|             | Pymetrozine   |             |
| rymetroznie |               |             |

\* Please refer to official compatibility sheet. For any formulation change it is recommended to do a compatibility test.

Legend: Physically compatible Continuous agitation advised

# STEWARDSHIP

#### **Tank Mixing**

- Tank mixing with an insecticide is permissible
- Addition of a non-wetted water conditioner (no built-in adjuvant) will improve efficacy in hard water areas, so is recommended
- Do not mix with adjuvants (Centurion Max has a built-in adjuvant), herbicides, fungicides, nutrients, or any other product

# Timing Restrictions (oilseed rape only)

- From two true leaves of the oilseed rape crop
- DO NOT apply after October 15 & NO spring applications

#### **No Spray Period**

- A 10-day no spray period is in place prior to using clethodim
- A 14 day no spray period is in place for herbicides and fungicides after using clethodim. A 7-day no spray period is in place for insecticides and additional nutritional products.

## **Condition Prohibition**

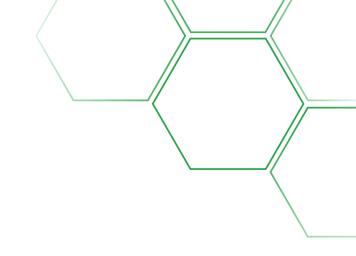
- DO NOT apply during cold weather, particularly frosts temperature should be above 7 degrees C.
- Ensure no crop stress or pest damage
- Adequate crop waxing and crop nutrition will minimise risk

# **BLACKGRASS CONTROL**

Clethodim exhibits outstanding blackgrass activity and excellent performance against key blackgrass strains. This includes those with reduced sensitivity to Tepraloxydim and Cycloxydim.

The image on the right demonstrates work co-ordinated by Stephen Moss, conducted at Long Aston Research Station. Applications shown 38 days after treatment.





# Centurion<sup>®</sup> MAX

# **APPLICATION**

# **GROWTH PHASE/TIMING**

#### Oilseed Rape

- Apply from two true leaves of oilseed rape crop to rosette growth stage.
- Ensure weather conditions are favourable for application, consult label for further guidance
- Autumn only applications. Do not apply after October 15

# **Sugar Beet**

- Treat from expanded cotyledon until inter- row spaces are covered. 56 day pre-harvest interval.
- A 5-day no spray period is in place for any herbicide before clethodim application.
- A 14-day no spray period is in place for herbicides post clethodim

## **GENERAL RECOMMENDATIONS**

- Apply to weeds between three leaf stage and two tillers
- Ensure that crops are healthy at time of application (no slug, CSFB or pigeon damage)
- Clethodim can be used as part of a programme with a soil-acting grass weed killer, in particular to deal with Alopecurus, which is resistant to ALS-inhibiting herbicides (HRAC Group B)

# Efficient:

Against grasses resistant to Fops, including Blackgrass



**Unique on**Annual Meadow-grass

# Effective:

Against grasses resistant to

Cycloxydim and tepraloxydim



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Use plant protection products safely.
Always read the label and product information before use.

ABOUT ARYSTA LIFESCIENCE

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