Health Canada Santé Canada

# Evaluation Report for Category C, Subcategory 6.3 (URMULE) Application

**Application Number:** 2010-0982
**Application:** **Category C, subcategory 6.3 (URMULE)**
**Product:** Command 360 ME
**Registration Number:** 27827
**Active ingredient (a.i.):** Clomazone (360 g/L)
**PMRA Document Number: 2148924**

## Background

Command 360 ME has been registered since October 6, 2004. Command 360 ME is registered for the control of labelled weeds on soybeans and sweet potatoes. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to product label.

## Purpose of Application

The purpose of this application was to amend the registration of Command 360 ME to include the claim of suppression of velvetleaf, lamb's-quarters and barnyard grass on field cucumber, melon (muskmelon and watermelon), squash (winter and summer) and processing pumpkin. The proposal seeks regional registration in Eastern Canada The product is intended for an application at a rate of 0.78 – 1.17 L product/ha (low rate for course textured soil, high rate for fine textured soil) with a single application per year and a minimum pre-harvest interval of 45 days for cucumbers, squash and processing pumpkins and 60 days for melons.

## Chemistry Assessment

A chemistry assessment was not required as there was no change to product chemistry.

## Health Assessment

A toxicology assessment was not required since there was no change to the formulation.

Command 360 ME is registered for use at rates of up to 846 g a.i./ha which is higher than the proposed rate in cucurbits. In addition clomazone is already registered for use on cucumber at the proposed rate. Therefore, exposure to chemical handlers mixing/loading and applying clomazone to other cucurbit vegetables is not expected to exceed levels already assessed for this active. Similarly the potential for exposure to post application workers and bystander is not expected to increase over the currently registered uses and is further mitigated by existing label restrictions.

To support the use expansion to Crop Group 9, residue data from supervised

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residue trials conducted in Canada were reviewed, in which cucumbers, cantaloupes, and summer squash were treated with clomazone and harvested according to label directions. In addition, freezer storage stability studies in sugarcane, sugarcane processed fractions, and field corn (grain, silage, and stover) were also reviewed to support the duration of frozen storage of samples from the supervised residue trials.

## Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for clomazone in/on the Crop Group 9 commodities listed in Table 1 was based on guidance provided in PRO2005-04 ("Guidance for Setting Pesticide Maximum Residue Limits Based on Field Trial Data"). Based on the residue data and the MRL statistical methodology, MRLs to cover residues of clomazone in/on Crop Group 9 commodities will be established as shown in Table 1.

**Table 1. Summary of Field Trial Data Used to Establish Maximum Residue Limits (MRLs) for Clomazone**

| Commodity | Application Method/ Total Application Rate (g a.i./ha) | PHI (days) | Residues (ppm) Min | Max | Currently Established MRL (ppm) | Recommended MRL (ppm) |
|---|---|---|---|---|---|---|
| Field Cucumbers | Soil Application/ 396-423 | 42-43 | <0.05 | <0.05 | None | 0.05 ppm for cucumbers, chayote fruit, Chinese waxgourds, citron melons, West Indian gherkins, edible gourds (other than those listed in this item), balsam apples, balsam pears, Chinese cucumbers, cantaloupes, muskmelons (other than those listed in this item), pumpkins, summer squash, winter squash, and watermelons |
| Cantaloupe | Soil Application/ 255-289 | 55-61 | <0.05 | <0.05 | | |
| Summer Squash | Soil Application/ 559-776 | 42-46 | <0.05 | <0.05 | | |

## Environmental Assessment

The rate of application of Command 360 ME Herbicide for preemergent weed control in field cucumbers, melons, squash and processing pumpkins (Crop Group 9) using broadcast application by field sprayer is lower than for the registered rate for use on soybeans and sweet potatoes. The Environmental Assessment Directorate does not expect an increased risk to the environment relative to other registered uses for this product. Command 360 ME cannot be

applied within 90 m of sensitive plants or terrestrial habitats. This proposed use expansion for Crop Group 9 has been previously supported for several successive Emergency Use registrations. Label revisions are not required for this URMULE at this time, however they will be reviewed at the time of product re-evaluation. Additional environmental data were not required to support this use expansion.

**Value Assessment**

Efficacy, crop tolerance and yield data were submitted from a total of 10 field trials conducted on field cucumber, five field trials on melon (muskmelon only), 24 field trials in squash (five in summer squash and 19 in winter squash) and 19 field trials in pumpkin at a variety of sites in Ontario, Quebec, Prince Edward Island, Nova Scotia, Alberta and British Columbia between 1996 and 2005. The provided weed control data were adequate for VSAD to support the labelling of suppression for velvetleaf, lamb's-quarters and barnyard grass when Command 360 ME was applied pre-emergence at 0.78 to 1.17 L/ha (280 to 420 g a.i./ha) in field cucumber, melon, squash and pumpkin. The crop injury and yield data that were provided demonstrate an acceptable level of injury to field cucumber, squash (summer and winter) and pumpkin when Command 360 ME was applied pre-emergence up to the maximum 1x rate of 1.17 L/ha (420 g a.i./ha). The data provided for melon demonstrate a potential for significant crop injury that may lead to a reduction in yield. For this reason, a cautionary statement was added to the label for melon.

**Conclusions**

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of Command 360 ME to include the claim of suppression of velvetleaf, lamb's-quarters and barnyard grass on field cucumber, melon (muskmelon and watermelon), squash (winter and summer) and processing pumpkin. The proposal seeks regional registration in Eastern Canada.

MRLs

Following the review of all available data, it was determined that MRLs of 0.05 ppm for residues of clomazone in/on cucumbers, chayote fruit, Chinese waxgourds, citron melons, West Indian gherkins, edible gourds (other than those listed in this item), balsam apples, balsam pears, Chinese cucumbers, cantaloupes, muskmelons (other than those listed in this item), pumpkins, summer squash, winter squash, and watermelons are considered adequate to cover residues of clomazone in/on these commodities as a result of this new use. Residues of clomazone in these crops at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

**Reference List**


| PMRA Document Number | Reference |
|---|---|
| 1741718 | 2009, Clomazone: Magnitude of the Residue on Cucumber, DACO: 7.4.1 |
| 1770769 | 2009, Clomazone: Magnitude of the Residue on Cantaloupe, DACO: 7.4.1 |
| 1770770 | 2009, Clomazone: Magnitude of the Residue on Summer squash, DACO: 7.4.1 |

1814642 1999, Storage Stability of Clomazone in/on Laboratory-Fortified Sugarcane and Sugarcane Processed Parts, DACO: 7.3
1814643 1999, Storage Stability of Clomazone on Laboratory-Fortifies Field Corn Grain, Silage, and Stover., DACO: 7.3
1741717 2009, Trial reports, DACO: 10.2.3.3

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