Department of Pesticide Regulation

Teresa Marks
Acting Director

Gavin Newsom
Governor

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Tawanda Maignan
Emergency Response Team Leader
U.S. EPA Office of Pesticide Programs
Document Processing Desk (EMEX)
Room S 4900, One Potomac Yard
2777 Crystal Drive
Arlington, Virginia 22202

SUBJECT: Re-certification Request for Section 18 Specific Emergency Exemption Transform®WG (EPA Reg. No. 62719-625)/ Cotton/ To Control *Lygus spp.*

Dear Ms. Maignan:

The California Department of Pesticide Regulation (DPR) requests a specific emergency exemption under the provisions of Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, for use of Sulfoxaflor, formulated as Transform®WG (EPA Reg. No. 62719-625), on cotton to control Lygus. This is the third year DPR has requested this use. DPR asks that this specific exemption request be processed as an expedited repeat request as the Department certifies that emergency conditions continue to exist for Lygus on cotton. In 2018, the Agency indicated that this emergency exemption is eligible for re-certification.

In the years from 2014 to 2016, California was experiencing the brutal effects of the drought. These impacts on agriculture included fallowed acreage, reduction in water allocations, and tougher production conditions. Due to these factors relating to drought, cotton growers adopted more targeted irrigation and management practices, and these changes assisted in creating an upward trend in yield. Prior to the emergency situation developing, the cotton industry had predicted a 5.6% increase in yield for the 2017 industry average.

However, despite having ample rainfall, additional acreage, and increased water allocations in 2017, the damage from Lygus caused a significant reduction in crop yields. Some areas experienced a half bale to a bale an acre loss. Under routine conditions, growers can produce on average 3.6 to 4.5 bales per acre, depending on growing region. Because the Section 18 was issued late in the season, several growers saw an 11.1% to 27.7% reduction in yield. Some growers experienced total loss because the Lygus damage was so severe they ended up discing their fields.

While there were growers who experienced total loss in 2017, there were hundreds of growers who were able to rebound from the severe Lygus infestations and produce a harvestable crop due

to the availability of Transform WG Insecticide. Going into the 2019 production season, growers are hoping to have the opportunity to provide more effective control in the early season to mitigate Lygus pest problems before yield is considerably impacted. To prevent early season losses as seen in 2017, California cotton growers will need to make the first application of Transform®WG by May 15, 2019.

For 2018, the economic data is not final; however, preliminary data is showing higher crop yields compared to 2017. The increase in yield is partly due to having early access to Transform®WG, which provided the ability to control Lygus without causing flare-ups of other late-season pests.

For the 2018-2019 winter, California experienced heavy rains, well above average Sierra snowpack, and heavy-late season precipitation. In past years with similar weather conditions, cotton growers experienced intense and continued Lygus pressure. The heavy, late-season precipitation has provided ideal host areas for overwintering Lygus populations. Several weed species are thriving due to ample wet conditions and will provide an ideal environment for the Lygus populations to build. As a result, growers are anticipating intense and continued Lygus pressure for the 2019 growing season.

While irrigation water supplies are expected to have less limitations compared to the last few years, some districts will still have fallow fields and "retired", uncropped lands. The possibility of having fallow fields and retired, uncropped lands is another source for weeds to thrive and Lygus populations to build up.

Greater Lygus pressure alone is an issue, but the weather conditions will also increase the susceptibility of the cotton crop to Lygus damage. The heavy late-season rainfall has resulted in a delay of planting cotton up to two weeks. The two week delay will leave the cotton plant in a very vulnerable growing state once the plant produces squares later in the season. If Transform®WG is not available for 2019, the California Cotton Ginners and Growers Associations anticipate that California cotton producers will experience far worse yield and crop loss than what was experienced in 2017.

Currently, registered pesticides and cultural practices are effective under routine conditions. However, with intense and continued Lygus pest pressure, the registered alternatives and prescribed cultural practices are not able to provide adequate control.

The last two seasons, Vydate (oxamyl) was either not available to growers or in limited supply. For this year, Vydate should be more widely available. However there could be potential for supplies to become more restricted in the mid-and late-season due to other parts of the country experiencing whitefly infestations in cotton. Vydate has some utility for controlling whiteflies.

Vydate is a key product for managing resident nymph populations versus migratory adults. Vydate provides good control on Lygus nymphs; however, the presence of nymphs would mean that Lygus adults have already become inhabitants in the field. Initial management of adults is

critically important during the first few weeks of fruiting (squaring); since even a low population of adults can reduce yield potential in plants. Vydate is employed in situations where reproduction occurs, but the use of Vydate is not the primary choice for when adults are just beginning to arrive.

DPR incorporates by reference and relies on the applications previously submitted to U.S. Environmental Protection Agency (EPA) to support this exemption request (EPA File Symbols 17-CA-05, 17-CA-06, and 18-CA-03). In addition, DPR further certifies pesticide applications will be made in accordance with, and incorporates by reference, all the provisions of our specific exemption application submitted in 2017 and 2018; along with the Agency's authorization letter for 17-CA-06 and 18-CA-03 (August 15, 2017 and April 17, 2018, respectively).

Additionally, please find attached a letter of authorization, dated March 14, 2019, from Dow AgroSciences. Dow AgroSciences is continuing to work with the U.S. EPA to approve this use on the Section 3 label; however, the approval is not anticipated to occur in time for the current season. Draft emergency exemption use instructions are also attached.

Applications made in accordance with the terms of the emergency exemption issued under section 18 of FIFRA are not expected to result in residues of sulfoxaflor, including its metabolites and degradates, in or on cotton commodities in excess of the following U.S. EPA previously established tolerances listed in the 40 CFR at 180.668:

Cotton, gin by products:	6.00 ppm
Cotton, hulls:	0.35 ppm
Cottonseed:	0.20 ppm

The emergency exemptions issued to California in 2018 for the use of Transform®WG (EPA Reg. No. 62719-625) on cotton expired on October 31, 2018. Following is the use report required in accordance with the Code of Federal Regulation (CFR) 40 CFR 166.32:

Amount of pesticide used – 9,550.62 lbs. active ingredient (Sulfoxaflor)
Total acres treated – 107,900.29
Number of permits issued – 863
Estimate of effectiveness –Good to Excellent
Any adverse effects noted - None
Some of the areas that were considered in investigating for possible adverse effects are:

a. Worker injuries;
b. Water contamination;
c. Food or feed contamination;
d. Effects on fish, wildlife, honeybees and domestic animals; and
e. Damage to non-target plants resulting from drift.

Please do not hesitate to contact me at 916-324-4251 or at francie.bishop@cdpr.ca.gov if you should have any further questions.

Sincerely,

Francie Bishop
Senior Environmental Scientist (Supervisory)
Pesticide Registration Branch
916-324-4251
<Francie.Bishop@cdpr.ca.gov>

Enclosures

cc: Ms. Ann Prichard, Registration Branch Chief, DPR
Ms. Margaret Reiff, Environmental Program Manager I (Supervisory), DPR
Ms. Tamica Cain, Emergency Response Team, U.S. EPA