



Evaluation Report for Category B, Subcategory 3.11 Application

Application Number: 2023-0431
Application: Category B.3.11 [New or Changes to Product Labels-New Pests]
Product: F4034-5 Biological Fungicide
Registration Number: 34102
Active ingredients (a.i.): *Bacillus velezensis* strain RTI 301; *Bacillus subtilis* strain RTI 477
PMRA Document Number: 3460212

Background

F4034-5 Biological Fungicide is a seed-applied biological fungicide that contains the active ingredients *Bacillus velezensis* strain RTI 301 and *Bacillus subtilis* strain RTI 477. Both are gram-positive spore-forming bacteria that colonize plant roots and produce anti-fungal compounds which repel certain fungal pathogens. F4034-5 Biological Fungicide is registered to partially suppress seed rot and seedling blight on corn, soybean, and sunflower. For specific details on registered uses, application rates, methods, precautions, and restrictions, refer to the product label.

Purpose of Application

The purpose of this application was to expand the claim of partial suppression of seed rot and seedling blight caused by *Fusarium graminearum* on corn to include the entire *Fusarium* genus at the currently registered rate of 6.4 mL/unit (80,000 seeds). The same claim is also proposed for soybean at the rate of 11.2 mL/unit (140,000 seeds) in soybean.

Chemistry Assessment

A chemistry assessment was not required since there was no change to product chemistry. Health and environment assessments were not required since the use pattern remained unchanged.

Value Assessment

The results of in vitro testing and efficacy trials on corn (nine trials) and soybean (nine trials) were reviewed in support of claims to partially suppress fusarium seed rot and seedling blight on corn and soybean.

The results of these trials showed disease reductions and increased plant counts and biomass in the presence of three different pathogenic fusarium species when applied as proposed. Based on the weight of evidence provided by the trial results and the product's mode of action, claims of partial suppression of seed rot and seedling blight caused by *Fusarium* spp. on corn and soybean are supported.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided and has determined it to be adequate support for the following claims on the F4034-5 Biological Fungicide label:

- Partial suppression of seed rot and seedling blight (*Fusarium* spp.) when applied as a seed treatment at a rate of 6.4 mL/ seed unit (80,000 seeds) on corn.
- Partial suppression of seed rot and seedling blight (*Fusarium* spp.) when applied as a seed treatment at a rate of 11.2 mL/seed unit (140,000 seeds) on soybean.

References

PMRA

Document

| Number | Reference |
|---------|---|
| 3421696 | 2022, FMC GH Corn - Biocontrol of <i>Fusarium</i> spp., DACO: M10.2.2 |
| 3421697 | 2022, Pooled results for Fusarium inoculated trials on corn, DACO: M10.2.2 |
| 3421698 | 2022, Pooled results for Fusarium inoculated trials on soybean, DACO: M10.2.2 |
| 3421699 | 2022, FMC GH Soybean 1- Biocontrol of <i>Fusarium</i> spp. Report 1.doc, DACO: M10.2.2 |
| 3432400 | 2023, Appendix Table E1 Overview of trial reports, DACO: M10.1,M10.2.1,M10.2.2 2023, Value Summary for F4034-5 Biological Fungicide (Ataplan), containing <i>Bacillus velezensis</i> RTI301 and <i>Bacillus subtilis</i> RTI477 for seed treatment application for the partial suppression of Fusarium seed rot and seedling blight of corn and soybean, DACO: M10.1, M10.2.1, M10.2.2,M10.3.1 |
| 3432401 | |
| 3432402 | 2015, Biological IP Spectrum Testing RTI301: Spot Plate Inhibition, DACO: M10.2.1 |
| 3432403 | 2015, Biological IP Spectrum Testing RTI477: Spot Plate Inhibition, DACO: M10.2.1 |
| 3432404 | 2023, 10.4.2 PERFORMANCE BENEFITS, DACO: M10.4,M10.4.1,M10.4.2,M10.4.3,M10.4.4 |

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