



Forticept Biofungicide and
Forticept PM Plant Wash

Confidential
Lidan, Inc.

The Forticept Technology «



- Technology: Forticept Polymer Complex is a trade secret polymer with unique properties for plant health, veterinary, and pesticide product formulations
- Revolutionary polymer complex improves the performance of plant health products as well as conventional pesticide and biopesticide active ingredients
- Forticept Biofungicide, currently pending EPA approval in 2020, contains a biochemical active ingredient, extract of *Thymus vulgaris*. Forticept Polymer Complex increases the performance of thyme oil against fungal and bacterial pathogens at a lower rate (8-10x) via reduction in volatility of the active excipients as well as a number of other functionalities.
- Lidan, Inc.'s proprietary Forticept Polymer Complex was approved by US EPA in 2018 as a tolerance exempt, minimum risk inert ingredient under 40 CFR Part 180

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA-HQ-OPP-2017-0520; FRL-9979-94]

Lignosulfonic Acid, Calcium, Comp. With 1,6 Hexanediamine Polymer With Guanidine Hydrochloride (1:1); Tolerance Exemption

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes an exemption from the requirement of a tolerance for residues of lignosulfonic acid, calcium, comp. with 1,6 hexanediamine polymer with guanidine hydrochloride (1:1) number average molecular weight 4,500 to 7,000 when used as an inert ingredient in a pesticide chemical formulation. Acadia Regulatory Consulting on behalf of Lidan, Inc. submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA), requesting an exemption from the requirement of a tolerance. This regulation eliminates the need to establish a maximum permissible level for residues of lignosulfonic acid, calcium, comp. with 1,6 hexanediamine polymer with guanidine hydrochloride (1:1) on food or feed commodities.

DATES: This regulation is effective August 24, 2018. Objections and

Five years of formulation and product development

» work with Forticept technology

Forticept Home&Garden
biofungicide for
lawncare, vegetable
gardens, and ornamental
landscapes



Forticept TNV Biofungicide
for tree, nut, and vine
crops



Forticept PM Wash
plant maintenance wash
for plant health



Forticept Agro
Biofungicide for row
crops



« Forticept Biofungicide
for greenhouse use
and post-harvest
treatment

Forticept Biofungicide

Tool Set for Residue and Resistance Management

Cost Effective with Absolute Ease of Use and Flexibility for the Grower

- Attractive Cost Per Acre Treatments
 - No Maximum Residue Limit
 - Effective at Low Rates
 - Unique Mode of Action
 - 7-14 Day Residual Disease Control
 - Ideal for Resistance Management Programs
 - Residue Management Go-To
- Easy to Mix and Apply
 - Rainfast Within Hours
 - Tank Mix Compatible
 - Long Shelf Life
 - Tolerant of pH and water hardness
 - Non-Hazardous to Transport
 - UV Tolerant
 - Temperature Stable
 - No Deposits on Fruits and Flowers

» **Forticept Biofungicide**
Commercial Properties

» Forticept Biofungicide

Toxicology and Advantages in the Field

Biodegradable Formula

Non-Persistent in the Environment

No Toxic Residues

0-Day Preharvest Interval (PHI)

Toxicity Category IV
by all routes of exposure

4-hour Re-Entry Interval (REI)

EPA Tolerance Exempt:
All Food/Nonfood Crops

No restrictions on use
- allowed for aerial application
- no spray buffer
- won't harm bees

FORTICEPT BIOFUNGICIDE TOXICOLOGICAL DATA RESULTS

STUDY TITLE	GUIDELINE	LD/LC VALUE	CONCLUSION
Acute Oral Toxicity	870.1100	LD50 >5000 mg/kg (rat)	EPA Toxicity Category IV
Acute Dermal Toxicity	870.1200	LD50 >5050 mg/kg (rat)	EPA Toxicity Category IV
Acute Inhalation Toxicity	870.1300	LC50 >210 ml/L (rat)	EPA Toxicity Category IV
Primary Eye Irritation	870.2400	Mildly Irritating. All positive reaction cleared <72 hours following exposure (rabbit).	EPA Toxicity Category IV
Primary Dermal Irritation	870.2500	Non-Irritating	EPA Toxicity Category IV
Skin Sensitization	870.2600	Not a Sensitizer (guinea pig)	EPA Toxicity Category IV

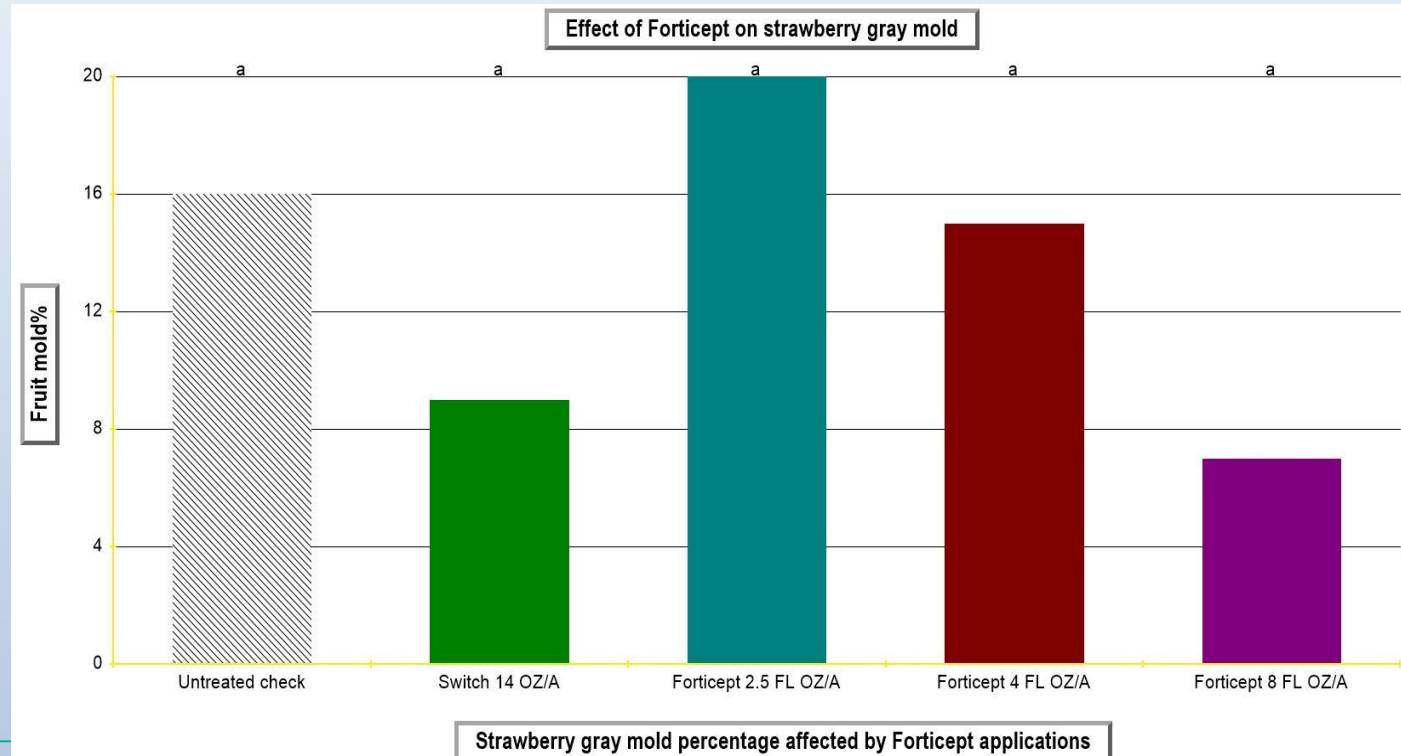
Ideal for Growers who need a

- Low-Tox Fungicide Option with No Maximum Residue Limit
- Ultimate Flexibility of Use

Forticept Biofungicide – field performance << —————

2017 Effect of Forticept on strawberry gray mold

- Forticept 8oz./acre performed on par with Switch 14oz./acre



2017 Effect of Forticept on botrytis in raspberry

- Excellent control compared to industry standard programs
- Effective as a foliar application in the field
- Post harvest treatment reduced botrytis damage

Forticept Biofungicide – field performance «

2016-2018 Effects of Forticept on Potato Late Blight, Soil Diseases, and Storage

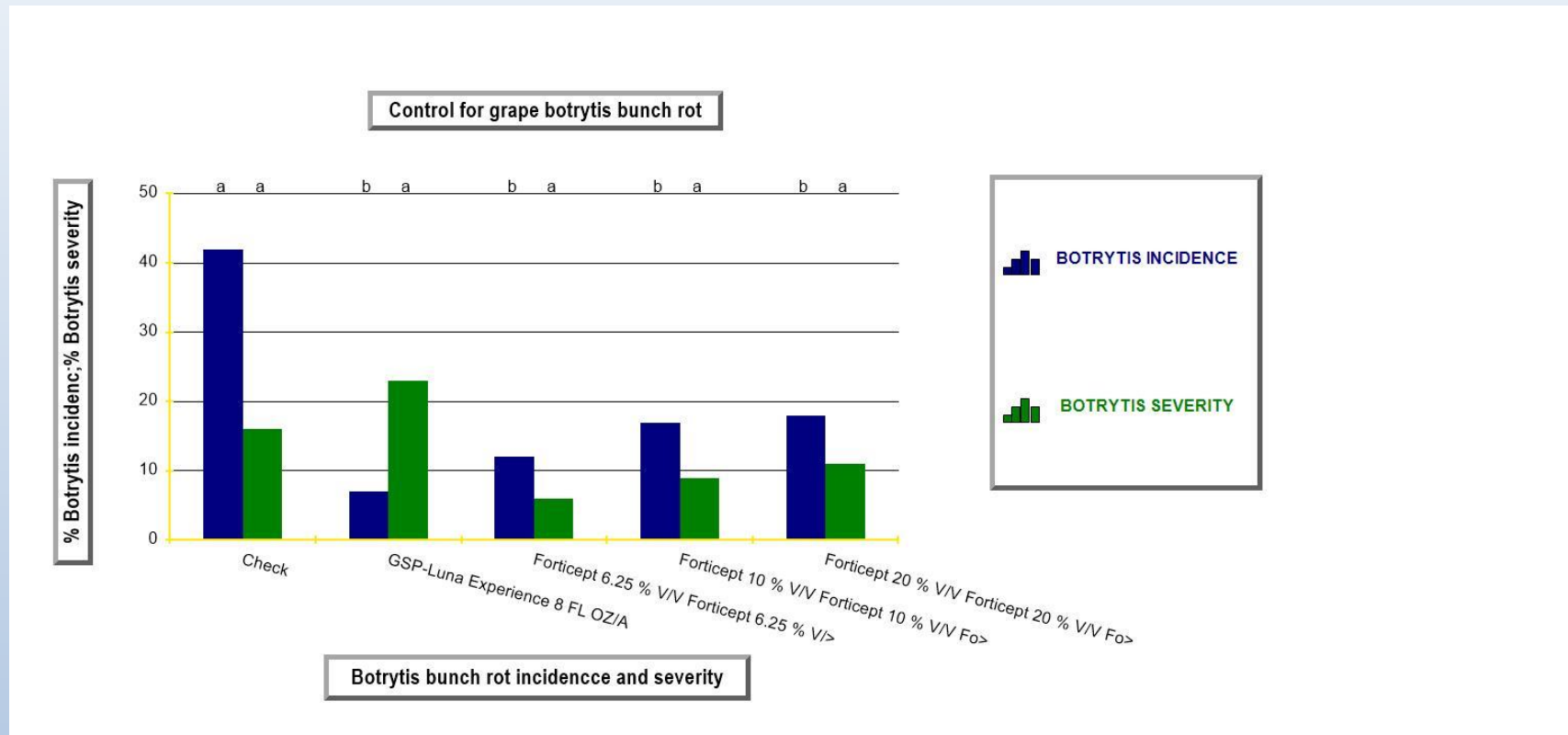
- Significant foliar treatment effect on damage and control of late blight
 - Performed better than Switch, Manzate Prostick, and Manzate Max
- Improved vigor mid-season from in-furrow treatment of seed pieces
- Lower incidence and severity of verticillium wilt
- Fewer stems, larger potatoes
- Lower incidence of white mold
- Improved black scurf suppressio

“Forticept seed treatments and in furrow treatments can improve vigor and suppress Verticillium wilt, plus they had similar or improved black scurf suppression compared to industry standard. Forticept treatments can reduce undersized and culls weight for potato tubers at harvest.” – Dr. Alan Schreiber, ADG



Forticept Biofungicide – field performance << —————

2017-2019 Effects of Forticept on Grape Powdery Mildew and Botrytis Bunch Rot

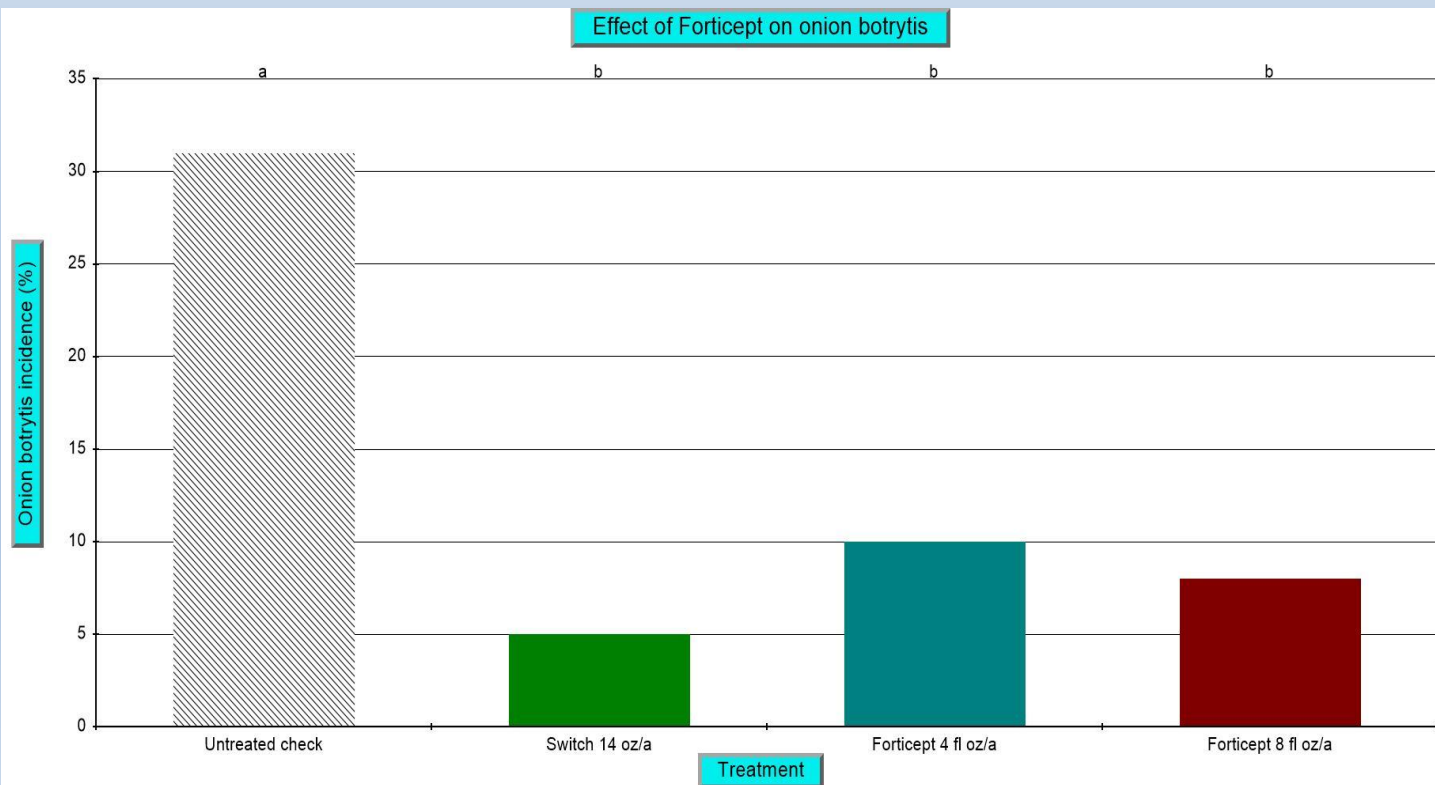


- Significant reduction in incidence and severity of botrytis bunch rot
- Comparable control to industry standard Luna Experience
- Reduction in severity of powdery mildew under high disease pressure

Forticept Biofungicide – field performance

- Excellent results from 2017 and 2018 trials for suppression of botrytis in onion
- Disease pressure was high due to a double field inoculation and storage conditions
- Commercial standard Switch showed 84% less onion botrytis incidence
- Forticept at 8 fl oz/a showed 74% less onion botrytis incidence

“The result indicated that Forticept can provide the same level of onion botrytis disease control as commercial standard.”
- Dr. Alan Schreiber, ADG



» Forticept PM Plant Wash

Formulated with our proprietary polymer technology

Forticept PM Plant Wash is a revolutionary new plant health product



For use on all food and non-food crops, ornamental landscapes, and floriculture



The first in our line of plant health and biofungicide products



Based on a proprietary, minimum risk polymer approved by EPA for inert use in biopesticide products



Pre-harvest treatment and post-harvest wash

