



New Developments Regarding a Recent Grain Protectant: Diacon II

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Methoprene: Juvenile Hormone Analog

- JH affects metamorphosis, molting, and reproductive ability.
- Highly active at low rates. Long residual activity.
- Excellent safety and environmental profile.
- Has been formulated in diverse products.



The fly in IGR's ointment...

- No knockdown.
- “Slow” to show effects.
- *IGR's need to be used as protectants or preventatives in insect-free situations, or used in conjunction with knockdown insecticides.*



Diacon II Grain Protectant

- Product launched early 2002.
- Methoprene was granted *exemption from tolerance* June, 2003.
- Supplemental label reflecting exemption from tolerance and further liberalizing use was approved 3/04.





Diacon II: Efficacy

- Labeled insects:

Almond Moth

Indian Meal Moth

Cigarette Beetle

Lesser Grain Borer

Sawtooth Grain Beetle

Merchant Grain Beetle

Red Flour Beetle

Confused Flour Beetle

“and other insect pests”

- Significant escapes: *Sitophilus spp.* Internal oviposition and feeding avoids exposure.

- Label rates protect grain 6 – 18 months or more.



Diacon II Supplemental Label:

One of the most remarkable labels you will ever see!

- Direct application to virtually any food commodity – grain, seeds, spices, feed!
- Use as a fogging concentrate or surface spray in commodity storage areas, food processing and food preparation areas!
- Application to packaged foods and packaging materials!



Methoprene Developments in Progress ...

- Demonstration(s) planned for metering Diacon II into dust control oils in large grain elevators.
- Anticipate more demand for Diacon II or new methoprene products in food processing.