<u>University of Nebraska-Lincoln</u> ► <u>Institute of Agriculture and Natural Resources</u> ► <u>Department of Entomology</u> ►

Insecticide Treatment Options for Bean Leaf Beetle in Soybean

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See https://www.greenbook.net or other resources for additional registrations.

*Consult product label for specific information and restrictions.

IRAC Mode of Action Classification:

- Group 1 = Acetylcholine esterase inhibitors; 1A = Carbamates, 1B = Organophosphates
- Group 3 = Sodium channel modulators
- Group 4 = Nicotinic acetylcholine receptor agonists/antagonists; 4A = Neonicotinoids
- Group 28 = Ryanodine receptor modulators, Diamides

R = Restricted-Use Product

| Mode Of Action | Product Name | Common Name | Rate Formulation/Acre) | Restrictions/Comments |
|-------------------|-----------------|----------------|---------------------------|--|
| 4A | Admire Pro | imidacloprid | 1.3 fl oz | PHI 21 days. Maximum allowed per crop season is 3.9 fl oz/acre. Minimum interval between applications is 7 days. |
| 4A | Alias 4F | imidacloprid | 1.5 fl oz | PHI 21 days. Maximum allowed per crop season is 4.5 fl oz/acre. Minimum interval between applications is 7 days. |
| 3 R | Ambush | permethrin | 3.2 - 6.4 fl oz | PHI 60 days. Do not graze treated areas or harvest for forage or hay. |
| 3 R | Arctic 3.2 EC | permethrin | 2 - 4 fl oz | PHI 60 days. Do not graze treated areas or feed forage for hay. |

| 3 R | Asana XL | esfenvalerate | 5.8 - 9.6 fl oz | PHI 21 days. Do not feed or graze livestock on treated fields. |
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| 3 R | Baythroid XL | cyfluthrin | 0.8 - 2.8 fl oz | PHI 21 days for seed. Green foliage may be fed 15 days after last application. Maximum 2.8 fl oz/acre allowed in 7 day interval, maximum 11.2 fl oz per crop season. |
| 4A | Belay | clothianidin | 3 - 6 fl oz | PHI 21 days. Do not graze or feed soybean forage and hay to livestock. Do not apply foliar treatments less than 7 days apart. Do not make foliar applications of Belay insecticide in fields treated with a neonicotinoid insecticide seed treatment(s) within 45 days after planting. |
| 3, 28 R | Besiege | lambda-cyhalothrin, chlorantraniliprole | 5 - 8 fl oz | PHI 30 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 3 R | Brigade 2EC, Fanfare 2EC | bifenthrin | 2.1 - 6.4 fl oz | PHI 18 days. |
| 3 R , 4A | Brigadier | bifenthrin, imidacloprid | 5.1 - 6.1 fl oz | PHI 21 days. PHI 45 days for feeding of dry vines. PHI 18 days for feeding of green vines. |
| 3 R | Capture LFR | bifenthrin | At Planting: (larval stage) 3.4 – 6.8 fl oz PPI: (larval stage) 4.0 – 5.3 fl oz Foliar: 2.8 – 8.5 fl oz | Foliar Restrictions: Do not make applications less than 30 days apart. PHI 18 days. |
| 1B, 3 R | Cobalt | chlorpyrifos and cyhalothrin | 19 - 38 fl oz | PHI 30 days. Maximum allowed per crop season is 85 fl oz/acre. Do not allow meat or dairy animals to graze in treated areas or feed treated soybean forage, hay, and straw to meat or dairy animals. |

| 1B, 3 R | Cobalt Advanced | chlorpyrifos and lambda-cyhalothrin | 16 - 38 fl oz | PHI 30 days. Maximum allowed per crop season is 85 fl oz/acre. Do not allow meat or dairy animals to graze in treated areas or feed treated soybean forage, hay, and straw to meat or dairy animals. |
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| 4A | Cruiser 5FS (seed treatment) | thiamethoxam | Pre-treated seed. 1.28 fl oz per 100 lbs seed | Recommended to use with compatible and registered seed treatment fungicides proven to control seed and seedling diseases. Do not apply a neonicotinoid insecticide within 45 days of planting seed treated with Cruiser 5FS. |
| 3 R | Declare | gamma-cyhalothrin | 0.77 – 1.28 fl oz | PHI 45 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 3 R | Delta Gold 1.5 EC | deltamethrin | 1.5 - 2.4 fl oz | PHI 21 days. Maximum allowed per crop season is 8.5 fl oz/acre. Do not allow livestock to graze treated forage, or feed treated hay to livestock. |
| 1B | Dimethoate 400 | dimethoate | 1 pt | PHI 21 days. Maximum application rate is 0.5 lb/acre. 7 day reapplication interval. |
| 3, 4A R | Endigo ZC | lambda-cyhalothrin and thiamethoxam | 4.0 - 4.5 fl oz | PHI 30 days. Do not exceed a total of 9.0 fl oz per acre per growing season. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 3A R, 44 (fungicide) | Ethos XB | bifenthrin, (B. amyloliquefaciens) | 2.8 – 8.5 fl oz | Do not make applications less than 30 days apart. PHI 18 days. |
| 3 R | Fastac EC | alpha-cyhalothrin | 2.8 - 3.8 fl oz | PHI 21 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 4A | Gaucho 600 | imidacloprid | 1.6 - 3.2 fl oz per cwt of seed | Do not graze or feed livestock on soybean forage or hay. |
| 3 R | Hero | zeta-cypermethrin and bifenthrin | 2.6 - 6.1 oz | PHI 21 days. Do not make applications less than 30 days apart. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 4A | Inovate Seed Protectant | clothianidin and fungicide seed | 4.74 fl oz/100 lbs seed | Foliar spray of clothianidin can be applied 45 days after planting Inovate Seed Protectant treated |

| | | treatments | | soybean seeds for mid to late season foliar insects. Do not apply more than a total of 0.2 lb active ingredient clothianidin per acre per season. Do not graze or feed soybean forage and hay to livestock. |
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| 3, 4A R | Justice | acetamiprid and bifenthrin | 2.5 - 3.0 oz | PHI 30 days. Do not apply more than 2 applications per season. Do not apply more than once every 7 days. Do not graze or use cut forage or hay as an animal feed. |
| 1A R | Lannate LV | methomyl | 0.75 - 1 pt | PHI 14 days for grain. PHI 3 days for forage. PHI 12 days for hay. Do not apply more than 4.5 pts/acre during a growing season or more than 3 applications per crop. |
| 1A | Larvin 3.2 | thiodicarb | 18-30 fl oz | PHI 28 days. Do not feed forage, hay, or straw to livestock. |
| 3, 4A R | Leverage 360 | imidacloprid and cyfluthrin | 2.8 fl oz | PHI 21 days for seed and 15 days for dry vines (hay) and green forage. Minimum of 7 day interval between applications. Maximum of 9.0 fl oz/acre per crop season. |
| 1B R | Lorsban Advanced, Nufos 4E | chlorpyrifos | 1 - 2 pts | PHI 28 days. Do not apply more than 3 applications of Lorsban Advanced or other product containing chlorpyrifos per year. Limit 6 pints per acre per season. Do not make a second application of Lorsban Advanced within 14 days of the first application. Do not allow meat or dairy animals to graze in treated areas or otherwise feed treated soybean forage, hay, and straw to meat or dairy animals. |
| 3 R | Mustang MAX EC | zeta-cypermethrin | 2.8 - 4.0 fl oz | PHI 21 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. Use higher recommended dosage for increased pest pressure, increased residual pest control or laterseason applications. |

| 1B R | Orthene 90S, Bracket 90WDG | acephate | 0.83 - 1.1 lbs | PHI 14 days. Air applications - 5-10 gal/acre spray solution. Ground Application - 10-50 gal/acre spray solution. |
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| 1B R | Penncap-M | methyl parathion | 2 - 3 pts | PHI 30 days for harvest or grazing. Do not make more than 2 applications per season. Do not apply more than once every 7 days. |
| 4A | Poncho/Votivo | clothianidin | Pre-treated seed. 0.13 mg ai/kernel | Foliar spray of clothianidin can be applied 45 days after planting PONCHO/VOTIVO treated soybean seeds for mid to late season foliar insects. Do not graze or feed soybean forage and hay to livestock. |
| 3 R | Pounce 25 WP | permethrin | 3.2 - 6.4 oz | PHI 60 days. Do not apply more than 0.4 lb ai per acre per season. Do not graze or feed soybean forage or hay. |
| 3 R | Proaxis | gamma-cyhalothrin | 1.92 - 3.20 fl oz | PHI 45 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 3 R | Respect | zeta-cypermethrin | 2.8 - 4.0 fl oz | PHI 21 days. Do not graze or harvest treated soybean forage, straw, or hay for livestock feed. |
| 1A | Sevin XLR Plus, 4F | carbaryl | 1/2 - 1 qt | PHI 21 days for grain. PHI 14 days for grazing and forage. Do not apply more than 6 quarts per acre per crop. |
| 1A | Sevin 80S | carbaryl | 5/8 - 1 ¹ / ₄ lb | PHI 21 days for grain. PHI 14 days for grazing and forage. Do not apply more than 7.5 lb per acre per crop. |
| 3A, 1B R | Stallion | zeta-cypermethrin and chlorpyrifos | 5.0 - 11.75 fl oz | PHI 28 days. Do not make applications of Stallion less than 14 days apart. Do not make more than 3 applications per season. Do not allow meat or dairy animals to graze in treated areas or otherwise feed treated soybean forage, hay, and straw to meat or dairy animals. |
| 3A R | Steed | zeta-cypermethrin and bifenthrin | 3.5 - 4.7 fl oz | PHI is 21 days. Do not make applications less than 30 days apart and do not apply more than 28.1 fl oz |

| | | | | per acre per season. Do not graze or harvest treated soybean forage, straw or hay for livestock feed. |
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| 3A, 4A R | Swagger | bifenthrin and imidacloprid | 7.6 - 12.2 fl oz | PHI 18 days. Minimum interval between applications: 30 days. Apply a maximum of 2 applications per season. |
| 3A, 4A R | Triple Crown | zeta cypermethrin, bifenthrin and imidacloprid | 3.5 - 4.8 fl oz | PHI 21 days. Minimum application interval: 30 days. Do not graze or harvest treated soybean forage, straw or hay for livestock feed. |
| 1B, 3 R | Tundra Supreme | chlorpyrifos and bifenthrin | 5.6 - 16.8 fl oz | PHI 28 days. Do not allow meat or dairy animals to graze in treated areas or otherwise feed treated soybean forage, hay and straw to meat or dairy animals. |
| 3 R | Warrior w/ Zeon Technology, Silencer | lambda- cyhalothrin | 1.92 - 3.20 fl oz | PHI 30 days. Do not graze or harvest treated soybean forage, straw or hay for livestock feed. |
| 3 R | Warrior II w/ Zeon Technology | lambda- cyhalothrin | 0.96 - 1.60 fl oz | PHI 30 days. Do not graze or harvest treated soybean forage, straw or hay for livestock feed. |