



June 4, 2007

Furadan 4F – Corn Rootworm

Corn rootworm hatch has begun in KS and most areas of NE except the panhandle area. According to heat unit accumulation, we should also start to see some rootworm larva in southeast SD this week, with a bulk of hatch occurring next week in eastern and central SD.

In most areas of NE, KS, and eastern CO we will want planned Furadan applications applied in the next 10-14 days. This gives Furadan the best chance of controlling rootworm while they are still small and feeding damage is still a minimum. Furadan applications in the NE panhandle and most of SD are likely a week to 10 days away yet. On the next page are GDD maps for NE and SD as of last Monday, 5/28. Assuming we accumulated 13 to 15 heat units per day (base 50), and using an average of 625 GDD for hatch to begin, you can see that most of eastern NE and southeast SD is past 625 GDD's. Growers need to be checking fields with where corn-on-corn is planted. Under heavy pressure, a planting time insecticide may not hold up. Poncho 1250 or Cruiser may also fail to control rootworm and growers need to dig up roots in the next 2 weeks and evaluate the feeding activity.

In the last several years, entomologists have documented the spread of extended diapause northern CRW. In SD, northeast NE and northern IA, growers with first-year corn need to check that for CRW feeding. Poncho 250 and Cruiser will not provide adequate protection. These fields may benefit greatly from a post-plant application of Furadan. Corn is smaller this year due to later planting so the root system may not be as able to withstand extensive feeding.

Furadan 4F Application

- 1 quart/acre broadcast
- Needs about 0.5" of rainfall/irrigation to move into root zone, so apply to dryland, gravity fields first to increase chances of rainfall.
- If no rainfall forecast, cultivation to incorporate will increase control.
- Furadan 4F effective for 1st generation ECB. Later applications on sprinkler irrigated fields may coincide with ECB egg hatch.

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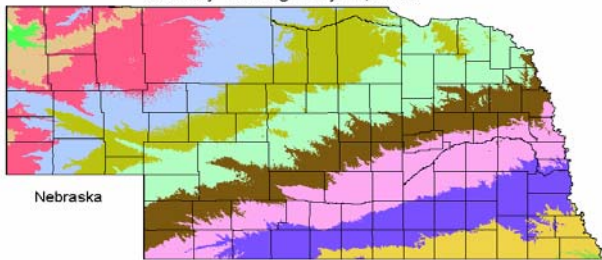
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GDD Accumulation for NE, SD as of 5/28/07. CRW hatch begins about 625 GDD's. Assume adding 13-15 GDD's per day with current temps

Heat Unit Accumulation

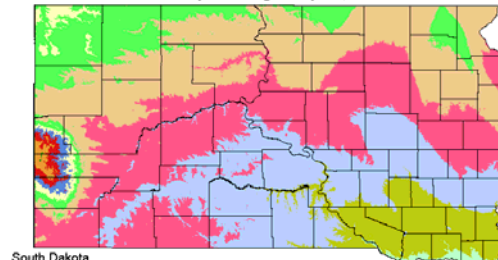
January 1 through May 28, 2006



Degree Days in 50F Unit Intervals, Beginning with Value Shown
300 350 400 450 500 550 600 650 700 750 800 850

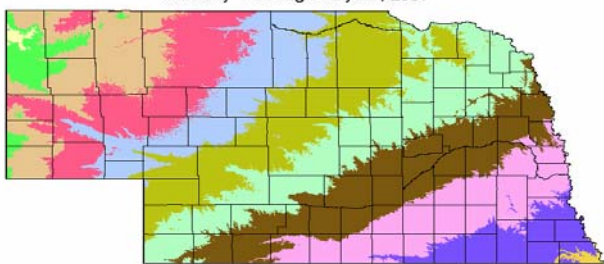
Heat Unit Accumulation

January 1 through May 28, 2006



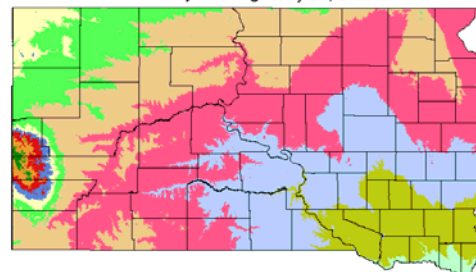
Degree Days in 50F Unit Intervals, Beginning with Value Shown
100 150 200 250 300 350 400 450 500 550 600

January 1 through May 28, 2007



Degree Days in 50F Unit Intervals, Beginning with Value Shown
250 300 350 400 450 500 550 600 650 700 750 800

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Late Rescue for CRW – Furadan 4F.

As we get later into June, CRW larvae get larger and damage more apparent and in some situations, fields may need an application of Furadan to help stop or reduce feeding to prevent corn lodging and severe yield loss. Here are a few tips to help maximize control with these late applications.

1. 1 quart / acre use rate.
2. Apply about 0.25-0.33" in first irrigation after application to move product off plant into soil. After first irrigation, resume regular watering of 0.75" or more. Experience has shown that too much water in first irrigation can move Furadan past rootworm feeding near brace roots.

Capture / Brigade 2EC – Chemigation for Rootworm Larvae.

Capture / Brigade has a 2ee label recommendation for application through sprinkler irrigation for control of CRW larva. Results of this application have been very good over the last 5 years or so since it was first labeled. Below are some application guidelines

1. Use rate 5.2-6.4 fl oz/A Use 6.4 oz for heavy pressure for maximum control.
2. Apply at or soon after hatch begins to take advantage of Brigade residual to prevent severe feeding.
3. Apply with 1.0 inch of irrigation water to move product into rootzone where rootworm are feeding. Capture / Brigade is insoluble, so needs to move with the initial water to rootzone where it attached to soil and controls rootworm.
4. Do not apply if soils are saturated and runoff occurs. Brigade is not going into soil, but moving off the field.



Pest Update

We have gotten several calls on **chinch bugs** damaging corn in south central KS around the Wichita area. These aggressive insects can destroy corn, sorghum very fast if left unchecked. As wheat is maturing, chinch bugs will continue to move from wheat and other grasses to crops like corn, sorghum. Look for this insect as wheat continues to mature in N-KS and SE-NE in the coming weeks. There are several options for control. **Furadan at 1.0 pt** has long been the standard labeled for both corn and sorghum. **Brigade at 3.0 oz** is labeled for corn and is excellent in control. **Hero EC at 3-5 oz**, which is a new insecticide from FMC is also very effective and will become the new standard for control. Mustang Max is labeled for sorghum as well and 4.0 oz will perform very well. With all applications for chinch bug, use a high water volume to get good coverage on the plant as chinch bugs will be under leaves, leaf collars, base of plant.

Potato leafhopper are showing up with the south winds and storms lately. Several fields of new alfalfa in central NE have been treated already. This insect is extremely damaging to alfalfa as it removes plant juices, it injects a toxin that stunts the growth and causes severe damage. New alfalfa is most at risk for damage. Thresholds for this insect are very low with 3 leafhoppers / 10 sweeps of a net as treatable levels. This pest is more of a problem in second and third cuttings, but can attack late 1st cutting as we have this year due to the freeze in April. If alfalfa is yellow from damage, cut the hay and treat the regrowth on the 2nd cutting. Mustang Max at 2-3 oz is recommended for control. If just looking to knock them down, use 2 oz. Use 3 oz for longer residual, especially on new stands where leafhopper can cause weaker plants to winter-kill next fall.

Cutworms are still causing damage mainly in SD on corn, but watch for them in sorghum, sunflowers emerging now. Mustang Max is labeled on all these crops and 1.5-2.5 oz should take care of any cutworm infestations.

POTATOES – Mustang Max, Beleaf, Brigade

For 2007, FMC has several new product labels for potato growers to manage insects. **Mustang Max and Brigade** are now labeled for foliar use. Both products should be very effective on potato leafhopper, grasshoppers, cornborer and other pests. Aphid control should also be very good, with Brigade raising the bar for pyrethroids for aphid control. For Brigade, use 3-6.4 oz for aphid control. Many of the aphid populations have become more tolerant to pyrethroids over the years so we need to be good stewards of products and not use repeated applications of low rates as resistance will begin to spread.

Beleaf 50 SG

Beleaf is a new class of chemistry that was registered for several vegetable crops including potatoes earlier this year. Beleaf is a pyradinecarboximide and is a potassium channel disrupter. What that means is that it is unlike any other product. Beleaf is very effective on aphids and lygus bugs. It has translaminar movement and some foliar systemic movement. This gives Beleaf very good control and residual activity. Some studies have shown residual up to 21 days or more. It is virtually non-active on many beneficial insects and is very safe for vegetable production and the grower as well. As mentioned, it is very effective on a wide range of aphid species including potato aphid, green peach aphid as well as aphids on other crops. Use rates on Beleaf are from 2.0-2.8 oz/acre. It is formulated as a water-dispersible 50% active granule. It has limited supply for 2007, so if interested, please check with your FMC rep on availability.