

Start Date for this NK Brand Agrometer

_____ , _____, 2005

For plantings at later dates, see the calendar for GDUs accumulated by your planting date. Subtract those GDUs from today's NK Brand Agrometer GDU reading to determine GDUs for your crop.

EARLY SEASON CORN DEVELOPMENT

Developmental Stage	Approximate Growing Degree Units required
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Planting to Emergence

120 GDUs

2-Leaf (Stage V2)

200 GDUs

Stage V6 (tassel initiation)

475 GDUs

A leaf every 3 days

65 GDUs

NK Brand Agrometer

Mid-Season CORN DEVELOPMENT

Developmental Stage	Approximate Growing Degree Units required
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Stage V6 (tassel initiation)

475 GDUs

A leaf every 3 days

+ 65 GDUs

Stage V10

740 GDUs

Stage V14

1000 GDUs

Stage VT (Tassel emergence)

1150 GDUs

Silking

1400 GDUs

Agrometer Start Date _____, 2004

Your planting date will affect the GDUs for your crop.

Do you know how Growing Degrees are calculated?

**Learn more about
the science behind
the Agrometer.**

**Learn how
Interpreting
GDUs can
provide more
information about
your corn crop.**

**Take a
Brochure!**

European Corn Borer Development

GDUs (Growing Degree Units) determine development of the European Corn Borer (ECB) as well as the corn plant. Tracking GDUs can be helpful in knowing when to apply pesticides for control on fields not planted to Bt hybrids.

The challenge is determining when to begin counting GDUs. ECB larvae overwinter in corn stubble. As temperatures warm, larvae go through a metamorphosis and become adult moths, laying eggs, which hatch into the larvae that attack the corn plants. **The chart below indicates GDU accumulation based on when the first adult moth is captured.** So, for your area, start counting GDUs once you start seeing adult corn borer moths. *This may or may not correspond with when you planted your corn*

Another difference between GDUs for ECB and GDUs for corn plant development is the 86 degree maximum for corn. Any heat above 86 degrees doesn't count for corn, but it does for corn borers. GDUs for first generation corn borers will track fairly close with the developing corn crop. The second generation develops later in the season when temperatures often exceed 86 degrees thus giving a developmental edge to the ECB that can take advantage of these higher temperatures.

Since, the Agrometer is designed to track GDUs for corn plant development (maximum 86° temperatures), your total accumulated GDUs may lag behind the formula for second generation ECB development.

GDU Effect on European Corn Borer Development		
GDUs** (See Note)	Stage or event	General activity
1st Generation		
212	Egg hatch (first instar)	Pin hole leaf feeding
318	Second instar	Shot hole leaf feeding
435	Third instar	Midrib and stalk bring
567	Fourth instar	Stalk boring
792	Fifth instar	Stalk boring
1002	Pupa	Changing to adult
1192	Adult moths	Mating and egg laying
2nd Generation		
1404	Egg hatch (first instar)	Pollen and leaf axil feeding
1510	Second instar	Leaf axil feeding
1627	Third instar	Sheath, collar and midrib boring
1759	Fourth instar	Stalk boring
1984	Fifth instar	Stalk boring
Note: ECB development starts when temperature reaches 50 degrees Fahrenheit. This is likely before seed planting. Therefore, ECB GDUs will accumulate faster than planted corn crop GDUs.		