

# Weekly Article

6-21-2021

## Is Your Corn Going to Be Knee High By the 4<sup>th</sup>?

Hello, my Name is Richard Purdin with OSU Extension, Ag and Natural Resource Educator and Community Development Educator for Adams County. I hope to better inform local producers and the public of the latest news in the world of agriculture. July the 4<sup>th</sup> is here, for many this means grilling hot dogs and watching fireworks. For me and many other farmers the 4<sup>th</sup> of July is usually spent cutting wheat, baling straw, cutting hay, and most importantly WATCHING THE CORN GROW! Growing up I was often told that the corn needed to be knee high by the fourth of July to make a crop, is this true? I believe it depends on what the corn is going to be used for. For grain producers planting their corn as early as possible so the corn can be harvested earlier in the fall before the winter weather halts field operation. For livestock producers looking to make corn into silage or just allowing the corn to be grazed by livestock, planting could be delayed later into the month of June. Today I want to discuss some key factors to corn development and some interesting facts that make corn Truly KING.

Corn is a warm season annual grass that loves warm days and cool nights. Corn is truly an American crop that was first cultivated by the native people of Mexico about 10,000 years ago. Corn development has two main stages, the vegetative stage and reproductive stage. Corn development is dependent on Growing Degree Days (GDD), this calculated by taking the average daily temperature and subtracting it from the minimum base temperature. The maximum high temperature that corn will grow is 86°F and the Minimum Temp corn can grow at is 50°F ( $86+50 = 136 / 2 = 68 - 50 = 18$  GGD) Corn maturity is categorized by days, so if you plant 100–130-day maturity corn it will take 2400 to 2800 growing degree days to reach full maturity.

Corn vegetative stages = VE (emergence), V1 is when the collar unrolls, V6 is the growth stage most of the corn is currently in now. V6 is a very important stage of growth because this is when the growing point is fully above the ground and the tassel is developing (cut the plant stalk in half and you will see the tassel developing up the stalk. The next important stage of vegetative growth is V12, ear size and development can be greatly affected at this stage of growth. VT is the stage in which the tassel is fully developed and, but silking has not started. Silks emerge at the R1 stage, and this is when uptake of Nitrogen and Phosphorus is at its highest rate. Then the ear develops and is completed at the R2 stage or blistering stage of growth. R5 is dent stage, this stage is important for livestock producers looking to make corn silage. Grain moisture levels are 55% moisture. Corn reached relative maturity at the R6 stage of growth often referred to as the black layer. The term black layer refers to the black color at the end of the kernel, moisture levels are between 30-35%.

Another popular term I often heard growing up is you can listen to corn grow, is that true? The answer is yes, the University of Nebraska conducted a project where researchers attach microphones to corn and the sounds of cracking and stretching is due to fibers stretching and breaking and rebuilding (kind of like the sound my body makes stacking hay). Research showed that in an 8-hour period corn grew 1.25 inches. So, between the fireworks listen closely you might be able to hear your corn grow!

Some other details to go over:

- July 15<sup>th</sup> is the set deadline to report acreage planted to spring crops such as corn, soybeans, oats, alfalfa, tomatoes, potatoes and more. Contact the FSA Office to report once crops are planted.
- July 16<sup>th</sup> the Highland County Chamber of Commerce will be hosting a second BQA recertification event, **call (937) 393-1111** to RSVP This will be held at the Highland County fairgrounds.
- July 22, 2021, Wrapper Tobacco Field Day 9:30am to 12:00PM located at Raines Farm and Greenhouse 2667 Nichols Ridge Road Seaman, Ohio 45679. Discussion will be on production, marketing, and new grower incentives. Call (937) 544-2339 to RSVP.
- September 14<sup>th</sup>, 2021, Adams County BQA/ Cattle Handling workshop will be held at the Adams County fairgrounds (Show Arena) 5:30 to 8:00pm. Contact the Adams County Extension office at (937) 544-2339 to RSVP.

From the field

- Wheat harvest in full swing, moisture levels are still 18%.
- Second round of post emergent herbicide applications to soybeans are taking place.
- Japanese beetle has emerged.
- Starting to notice water hemp growth in crop fields.
- First cutting hay almost complete.
- Tobacco producers need to keep an eye out for tobacco horn worm and budworms.
- Nitrogen applications to corn continues.
- Horn fly and stable fly populations are high due to the wet, humid weather.
- Gardeners need to be on the lookout for Japanese Beetle feeding on Beans and cabbage worm populations seem to be high this year.

