



ACRES OF GOLD

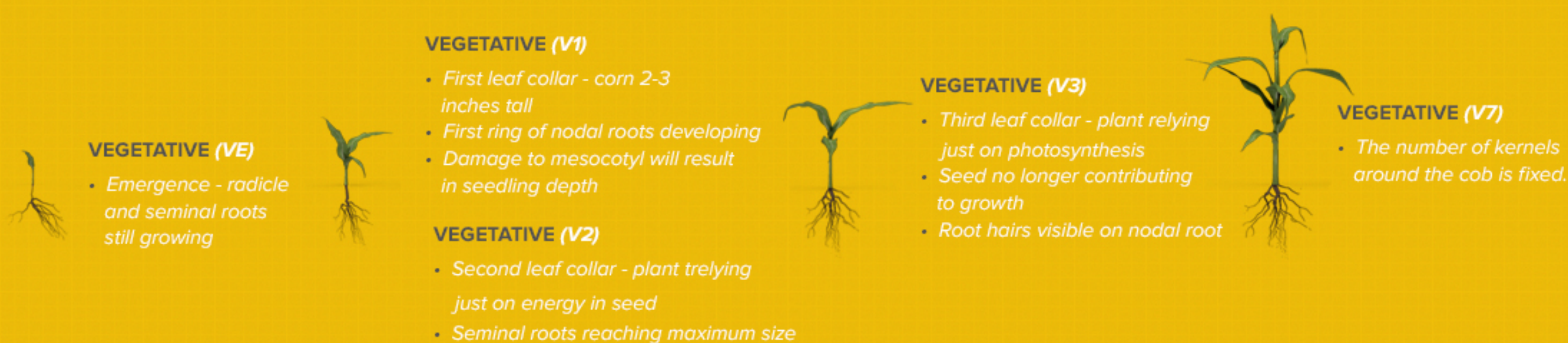
THE CORN YIELD OPTIMIZATION GUIDE

EARLY SEASON (VE—V10)

ENVIRONMENT

CORN PLANT DEVELOPMENT

Evaluating corn stands soon after emergence is a critical step to understanding the success of your planting operations and to begin establishing yield expectations and associated management opportunities for each field.



PRODUCT SELECTION

EVALUATING EARLY SEASON STAND ESTABLISHMENT

Understanding differences in emergence and early season growth between corn products on your farm can offer valuable insights into potential growth and yield differences later in the season.

AREAS TO EVALUATE

- Genetic Differences
- Environment
- Residue
- Disease

EQUIPMENT

MEASUREMENT TECHNIQUES

Evaluating corn stands soon after emergence is a critical step to understand the success of your planting operations. Insights gained from current year observations can help in making equipment-related adjustments to improve planting success next year.

METHOD 1: THE 1/1000 TH OF AN ACRE TECHNIQUE			
Row Width		Row Length Equal to 1/1000 th Acre	
Centimeters	Inches	Meters	Feet
51	20	8	26' 1"
76	30	5.3	17' 5"
91	36	4.4	14' 6"
97	38	4.2	13' 9"

PROS:

- QUICK & EASY
- REQUIRES ONLY A MEASURING TAPE

CONS:

- LESS ACCURATE
- GREATER POTENTIAL FOR SAMPLING BIAS

METHOD 2: MEASURING WHEEL TECHNIQUE	
Count plants while pushing a measuring wheel down the row. When you reach 150 plants, record the distance traveled and divide this distance into the following factor and multiply by 1,000 to get the plant population in thousands/acre.	
Row Width	Factor
20	3,920.4
30	2,613.6
36	2,178.0
38	2,063.4

PROS:

- QUICK & EASY
- MORE REPRESENTATIVE; LESS OPPORTUNITY FOR SAMPLING BIAS

CONS:

- REQUIRES MEASURING WHEEL
- SLIGHTLY MORE COMPLEX CALCULATION



EARLY SEASON (VE—V10)

FERTILITY

NUTRIENT DEFICIENCY SYMPTOMS

In order to optimize corn yield potential, it is critical to ensure adequate Nitrogen (N) is available to the developing corn plant.

THE POTENTIAL FOR N LOSS IS INFLUENCED BY MANY FACTORS INCLUDING:

1. Timing of application
2. Form of N applied
3. Use of volatilization (urea or UAN) or nitrification (NH₃ or UAN solution) inhibitors
4. Soil type and organic matter content
5. Environmental conditions after application

In years where conditions following Nitrogen (N) applications have been conducive to loss, it is imperative to evaluate the potential amount lost and determine needs for supplemental applications during early vegetative growth to help ensure adequate N is available to optimize corn yield potential.

INSECT MANAGEMENT

THE IMPORTANCE OF SCOUTING

In areas with high corn rootworm pressure, growers should scout their fields to assess insect damage and determine their best management practices for this year and next. Tools like insectforecast.com can help farmers determine the best time to scout for damaging pests in their fields.

INSECT FORECAST

Farmers can log on to www.insectforecast.com to learn when corn rootworm larvae are hatching, and to track the migration and moth flights of two damaging above-ground insects, corn earworm and western bean cutworm, throughout the growing season. With online and mobile access, this tool is useful to better understand when potential insect damage may occur and to help farmers with their scouting efforts.



Download agIndex to your smartphone or tablet for insect forecast updates on the go.

BE ON THE LOOKOUT FOR POTENTIAL EARLY SEASON INSECT PESTS

CORN GROWTH STAGE					
VE	V2	V4	V6	V8	V10
Seedcorn Maggot					
White grub					
Flea beetle*					
Bill bug*					
Slug					
Wireworm					
Black Cutworm					
Common Stalk Borer					
Armyworm					
Brown Stinkbug					
Corn Rootworm Larvae					
					European Corn Borer 1 st generation*
					Southwestern Corn Borer 1 st generation*
					Corn Leaf Aphids
					Corn Rootworm Adult
					Japanese Beetle
					Grasshopper



EARLY SEASON (VE—V10)

DISEASE MANAGEMENT

EARLY SEASON DISEASE IDENTIFICATION

Identifying fields with seedling blight issues can aid in management decisions to avoid repeat issues in next year's crop.



SEEDLING BLIGHTS

Fungi are widespread, but many of them are more abundant in corn-on-corn or no-till situations.

- Pythium
- Fusarium
- Rhizoctonia
- Diplodia
- Penicillium
- Trichoderma
- Aspergillus



ANTHRACNOSE LEAF BLIGHT

The leaf blight phase of Anthracnose generally occurs during early vegetative growth. This is a good indicator that the pathogen is present in the field but does not confirm that the stalk rot phase will be an issue.

WEED MANAGEMENT

EARLY SEASON WEED COMPETITION

Did you know that weeds have the potential to compete with corn, alter its growth and reduce yield potential beginning as early as V1 (1-Leaf stage)? The first flush of weeds that emerge soon after corn planting can be the most competitive.

WEED CONTROL/REMOVAL TIMING



ELIMINATING EARLY-SEASON WEED COMPETITION IS A CRITICAL STEP IN OPTIMIZING CORN YIELD POTENTIAL

The influence of time of weed removal on corn ear size is evident in side-by-side evaluation. Corn plants detect the presence of weeds very early in their growth cycle and make reproductive adjustments that are not altered by subsequent ideal growing conditions.