

Corn Growth and Development: Crop Growth and Stages of Development

Crop growth and development can be divided into vegetative (V) and reproductive (R) stages.

Vegetative Stages (V)	Reproductive Stages (R)
VE Emergence	R1 Silking
V1 First leaf	R2 Blister
V2 Second leaf	R3 Milk
V3 Third leaf	R4 Dough
*	R5 Dent
*	R6 Physiological maturity

*
 Vnth
 VT tasseling

Subdivisions of the V-stages are designated numerically as V1, V2, V3, through Vn, where n represents the last stage before Vt (tasseling). The six subdivisions of the reproductive stages are designated numerically. Each leaf stage is defined according to the uppermost leaf whose collar is visible. Beginning at about V6, increasing stalk and nodal root growth combine to tear the small lowest leaves from the plant. To determine the leaf stage after lower leaf loss, split the lower stalk lengthwise and inspect for internode elongation. The first node above the first elongated stalk internode generally is the fifth leaf node. The internode usually is about one centimeter in length. This fifth leaf node may be used as a replacement reference point for counting to the top leaf collar. In a corn field all plants will not be in the same stage at the same time. Each specific V or R stage is defined only when 50% or more of the plants in the field are in or beyond that stage.

Although each stage of development is critical for proper corn production we will focus on VE, V6, V12, V18, R1, and R6.



Source and Links

Corn Growth & Development Prior to Pollination; Dr. R.L. Nielsen, Agronomy Department, Purdue University .

Corn Growth & Development Pertaining to Pollination; Dr. R.L. Nielsen, Agronomy Department, Purdue University .

Corn Growth & Development Pertaining to Grain Fill, Maturation, and Drydown; Dr. R.L. Nielsen, Agronomy Department, Purdue University .

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Response of Corn to Uneven Emergence; Nafziger, E.D., P.R. Carter, and E.E. Graham. 1991. Crop Sci. 31:811-815.

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