

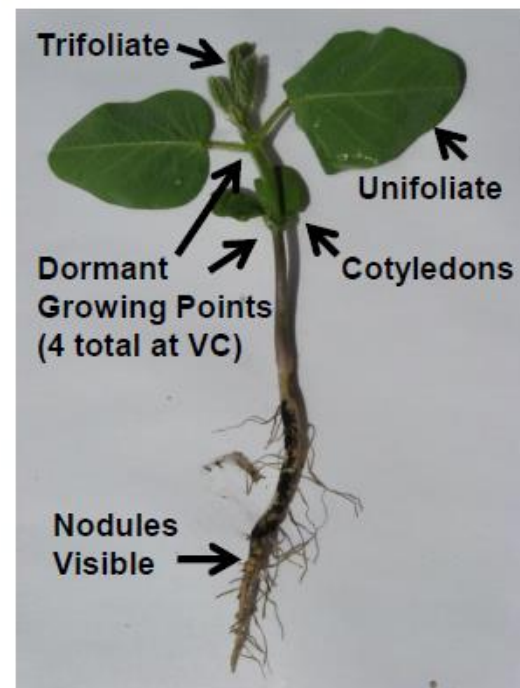
Stage	Vegetative Development Milestones
VE	Emergence: Cotyledons above the soil surface. Cotyledons provide nutrients for 7 to 10 days.
VC	Cotyledons have fully expanded and unifoliate leaves have unfolded. Four dormant growing points are present at the base of the petiole (axil) of unifoliate leaves and cotyledons.
V1	First Trifoliate: Second true node, but the first node at which a trifoliate leaf is produced. Nodules visible. New V stages develop every 5 days with normal temperatures.
V2	Two fully developed trifoliates unfolded. 8 inches tall. Nodules actively fixing nitrogen. Cotyledons have fallen off plant. Lateral roots proliferating rapidly in top 6 inches of soil.
V3 to V4	Dramatic increase in number of nodules visible on roots. Typically time that iron chlorosis deficiency syndrome is beginning to be very visible in impacted fields.
V5 - V(N)	Lateral roots extend 15 inches away from main stem and grow to the center of 30 inch rows. Branches start developing on lowest nodes. Total number of nodes that the plant may produce is set at V5.

Stage	Reproductive Development Milestones
R1	Beginning Bloom: A plant is at the R1 stage when one flower is open at any node on the main stem.
R2	Full Bloom: An open flower at one of the two uppermost nodes on the main stem with a fully developed leaf.
R3	Beginning Pod: Pods are 3/16 inch long at one of the four uppermost nodes on the main stem.
R4	Full Pod: Pod is 3/4 inch long at one of the four uppermost nodes on the main stem.
R5	Beginning Seed: Seed in one of the four uppermost nodes with fully developed leaves is 1/8 long.
R6	Full Seed: Pod containing a green seed that fills the pod cavity is present at one of the top 4 nodes.
R7	Beginning Maturity: One normal pod on the main stem has reached its mature pod color.
R8	Full Maturity: At this stage 95% of the pods have reached maturity, but not yet at harvest moisture. Harvest moisture typically reached 7 to 10 days after start of V8 stage.



## Plant Density

Plants per acre					
Plants/foot of row	Row width (inches)				
	30	20	15	10	7
1	17,400	26,100	34,800	52,300	74,700
2	34,800	52,300	69,700	104,500	149,300
3	52,300	78,400	104,500	156,800	224,000
4	69,700	104,500	139,400	209,100	298,700
5	87,100	130,700	174,200	261,400	373,400
6	104,500	156,800	209,100	313,600	
7	122,000	183,000	243,900		
8	139,400	209,100	278,800		
9	156,800	235,200	313,600		
10	174,200	261,400			
11	191,700	287,500			
12	209,100	313,600			



Soybean varieties in Minnesota are indeterminate in growth habit and continue vegetative growth after flowering.

Rate of development is directly related to temperature.

