

A close-up photograph of a soybean plant stem with several green, fuzzy pods. The pods are in various stages of development, some appearing more mature than others. The background is a soft-focus green, suggesting a field of soybeans.

Guide to Soybean Growth Stages

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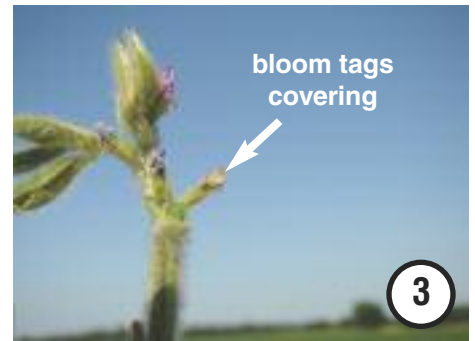
Guide to Soybean Growth Stages and Growth Stage Predictor



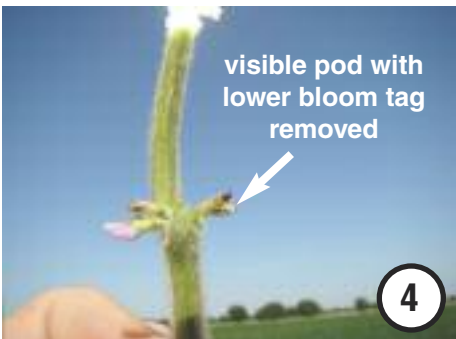
R1: First flower anywhere on the plant.



R2: Flower in the upper (youngest) two nodes.



R3: 3/16-inch-long pod in upper four nodes.



R3: 3/16-inch-long pod in upper four nodes.



R3.5: 1/2-inch-long pod in upper four nodes.



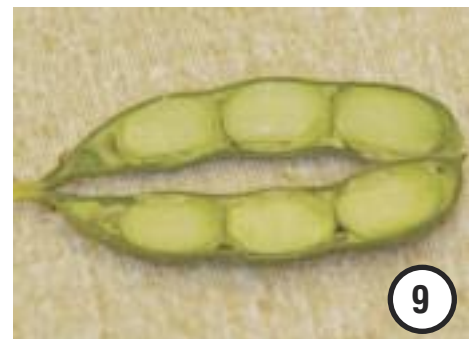
R4: 3/4-inch-long pod in upper four nodes



R5: Visible seed in pod of upper four nodes.



R5.5: Beans filling half the space in the pod of upper four nodes.



R6: Beans touching inside pods of upper four nodes.



R6.5: Pod and pod wall beginning to turn mature color.



R7: Pod mature in color anywhere on plant.



R8: 50 percent of the pods mature in color and containing mature seed.

Approximate interval in days between successive reproductive growth stages by maturity group (MG) and planting date (PD) under irrigated field conditions at Stoneville, Mississippi.¹

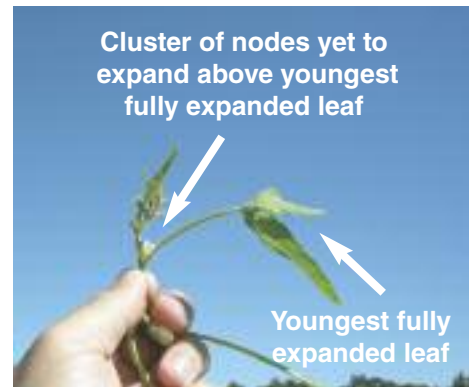
MG	PD	PD-R1	R1-R2	R2-R3	R3-R4	R4-R5	R5-R6	R6-R7	R7-R8	R1-R8	PD-R8
4.4	3/15	53	3	12	8	8	25	20	12	87	140
4.4	4/15	42	4	15	8	8	25	18	13	91	133
4.4	5/15	37	5	15	8	8	23	17	11	87	124
4.4	6/14	38	4	14	8	8	20	14	9	76	112
4.4	7/04	35	4	13	7	7	18	12	7	67	102
4.9	3/15	58	4	13	9	8	26	21	14	95	153
4.9	4/15	47	4	16	9	8	26	19	13	95	142
4.9	5/15	41	5	15	9	8	24	17	11	89	130
4.9	6/14	38	5	14	9	7	20	14	10	79	117
4.9	7/04	37	4	13	7	7	18	12	8	69	106
5.4	3/15	64	4	15	9	10	26	22	14	100	164
5.4	4/15	53	4	16	10	9	26	20	13	98	151
5.4	5/15	48	4	16	10	8	24	18	13	93	139
5.4	6/14	41	5	15	8	8	21	14	9	80	121
5.4	7/4	39	4	14	7	7	18	13	8	71	110
5.9	4/15	58	5	17	11	9	27	20	13	102	160
5.9	5/15	50	5	17	10	8	25	18	11	94	144
5.9	6/14	44	5	16	8	8	22	14	10	83	127
5.9	6/29	42	4	15	8	7	20	13	8	75	117

¹ Data were adapted from Zhang et al. (2004) Crop Management. Data were compiled across multiple years (1998 and 2002), resulting in a variety of environmental conditions.

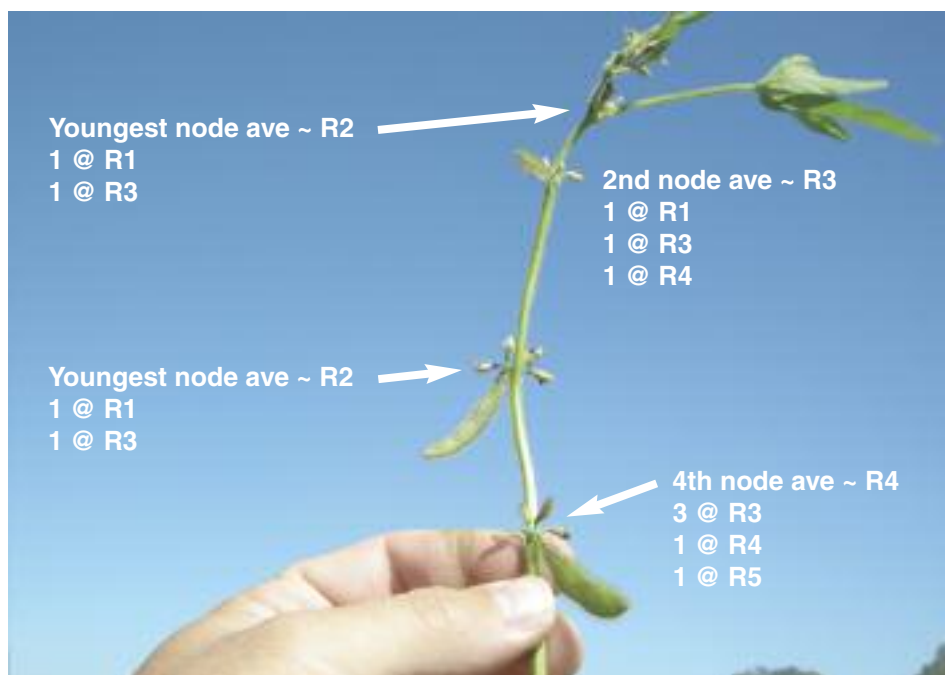
How To Determine Soybean Growth Stage

Concentrate on the youngest (upper) four nodes to determine soybean growth stage. Estimate the average growth stage for the reproductive growth (flowers and pods) on the youngest four nodes. Begin with the youngest fully expanded leaf (see picture 1 right), and estimate growth stage down the next three nodes (see picture 2 below).

Indeterminate varieties (most group 4 varieties and a few group 5 varieties) start reproductive growth toward the bottom of the plant. The reproductive growth progresses from the bottom of the plant upward as the plant produces more nodes.



PICTURE 1



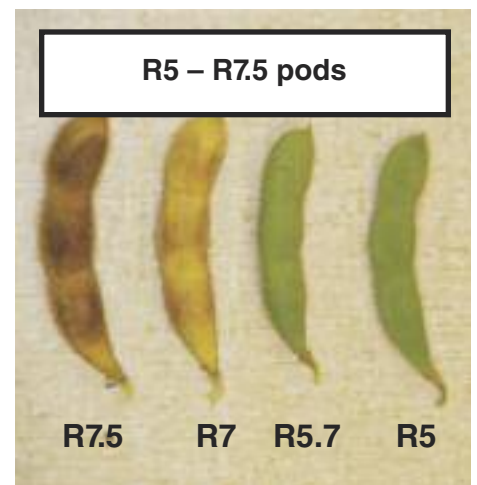
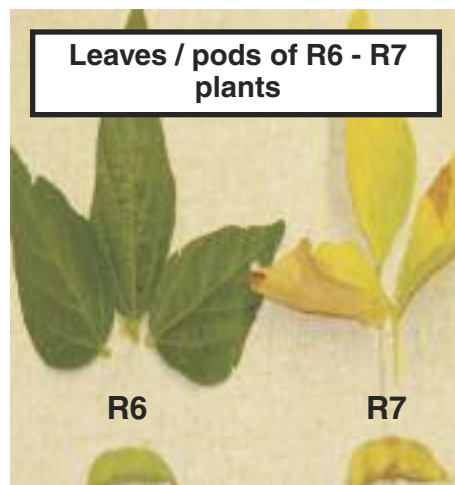
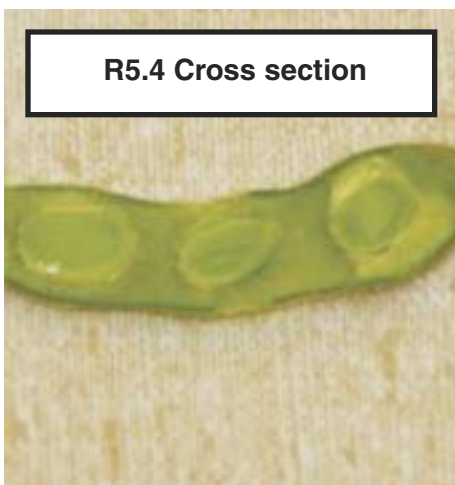
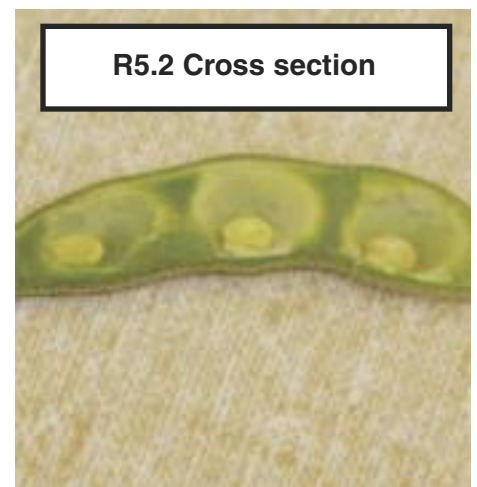
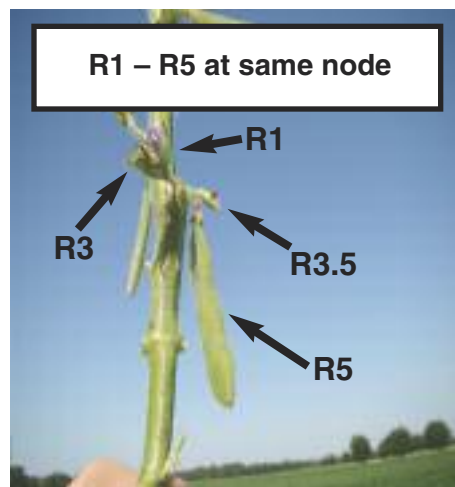
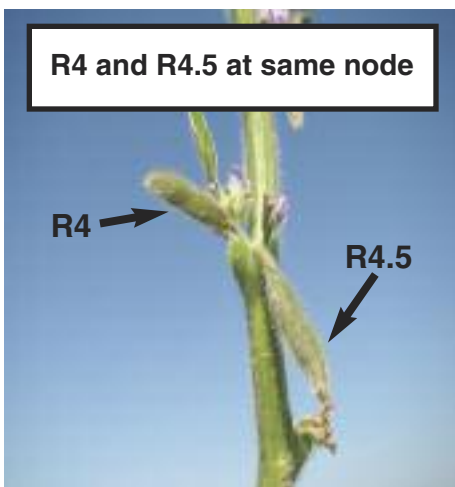
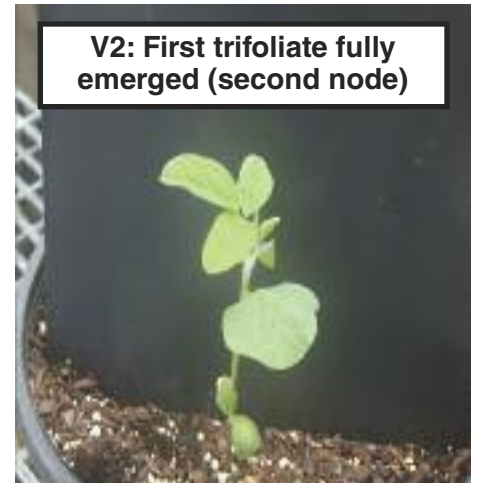
PICTURE 2

Avg. growth stage = R3

Determinate varieties (most of our group 5 varieties) start reproductive growth uniformly up and down the main stem.

Another way of thinking about this is that it is common to see pods in the R5 growth stage at the bottom of plants and new flowers and pods at the top of indeterminate growth plants. Determinate growth plants have same-sized flowers and pods and that grow uniformly up and down the stem.

Vegetative and Reproductive Soybean Growth Stages



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