Tracking Soybean Plant Development Stages

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During the past three years (2004-06) at the NDSU Carrington Research Extension Center, soybean varieties with relative maturity 0.0 and 0.5 were monitored during the growing season to determine days required for plants to reach selected growth stages. The objective of the work was to develop a table as a quick reference to estimate time required for soybean to reach a certain stage for management purposes (e.g. proper timing for application of crop protection products).

Below is a table that contains the currently-compiled soybean plant development data. The data is listed by year and relative maturity, three-year averages by relative maturity, and three-year average across relative maturities.

Days for soybean plant stage development, Carrington, 2004-06.									
Plant stage-to-stage:									
	Days								
	VE	V1	V3	R1	R3	R5	R7	R8	
		(first	(three						
	(plant	trifoliate	trifoliate	(first	(initial	(initial	(initial	(full	
Year (planting date)	emergence)	leaf)	leaves)	flower)	pod)	seed)	maturity)	maturity)	VE-R8
2004 (May 10)									
Walsh (0.0)	26	15	9	14	18	12	35	5	108
RG405RR	26	15	10	13	18	14	38	6	114
2005 (May 17)									
RG200RR	14	12	9	11	20	9	31	5	97
RG405RR	14	11	10	16	16	9	32	5	99
2006 (May 16)									
RG200RR	11	12	12	8	12	6	32	5	87
RG405RR	12	12	11	13	16	12	Х	38	102
3-yr average - 0.0 relative maturity:									
stage to stage	17	13	10	12	17	9	33	5	97
from planting date	17	30	40	52	69	78	111	116	
3-yr average - 0.5 rel									
stage to stage	17	13	10	14	17	12	35	6	107
from planting date	17	30	40	54	71	83	118	124	
3-yr average - across									
stage to stage	17	13	10	13	17	10	34	5	102
from planting date	17	30	40	53	71	81	115	120	