Soybean stand reduction / yield loss estimates. The four tables cover original stands from 180,000 to 15,000 on the vertical axis, and stand loss from 180,000 to zero on the horizontal axis. The numbers within the charts represent percent yield reduction.

TABLE F: INDETERMINATE SOYBEAN STAND REDUCTION LOSS VC – R1 STAGES (Page 1 of 3)

Original Stand Plants/Acre	REMAINING PLANTS PER ACRE (000's omitted)																		
	180	175	170	165	160	155	150	145	140	135	130	125	122.5	120	117.5	115	112.5	110	107.5
180,000	0	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4
175,000		0	0	0	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3
170,000			0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3
165,000				0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3
160,000					0	0	0	0	1	1	1	2	2	2	2	2	3	3	3
155,000						0	0	0	1	1	1	1	2	2	2	2	3	3	3
150,000							0	0	0	1	1	1	1	2	2	2	2	3	3
145,000								0	0	0	1	1	1	1	2	2	2	2	3
140,000									0	0	1	1	1	1	1	2	2	2	3
135,000										0	0	1	1	1	1	1	2	2	2
130,000											0	0	1	1	1	1	1	2	2
125,000												0	0	0	1	1	1	1	2
122,500													0	0	0	1	1	1	1
120,000														0	0	0	1	1	1
117,500															0	0	0	1	1
115,000																0	0	1	1
112,500																	0	0	1
110,000																		0	0
107,500																			0

Original Stand Plants/Acre	REMAINING PLANTS PER ACRE (000's omitted)																		
	105	102.5	100	97.5	95	92.5	90	87.5	85	82.5	80	77.5	75	72.5	70	67.5	65	62.5	60
180,000	4	4	5	5	5	6	6	7	7	8	9	9	10	11	12	13	14	15	16
175,000	4	4	5	5	5	6	6	7	7	8	9	9	10	11	12	13	14	15	16
170,000	4	4	4	5	5	6	6	7	7	8	9	9	10	11	12	13	14	15	16
165,000	4	4	4	5	5	6	6	7	7	8	8	9	10	11	12	13	14	15	16
160,000	4	4	4	5	5	5	6	7	7	8	8	9	10	11	12	13	14	15	16
155,000	3	4	4	4	5	5	6	6	7	8	8	9	10	11	11	12	13	15	16
150,000	3	4	4	4	5	5	6	6	7	7	8	9	10	10	11	12	13	14	16
145,000	3	3	4	4	5	5	6	6	7	7	8	9	9	10	11	12	13	14	15
140,000	3	3	4	4	4	5	5	6	6	7	8	8	9	10	11	12	13	14	15
135,000	3	3	3	4	4	5	5	6	6	7	7	8	9	10	11	12	13	14	15
130,000	2	3	3	3	4	4	5	5	6	7	7	8	9	10	10	11	13	14	15
125,000	2	2	3	3	4	4	4	5	6	6	7	8	8	9	10	11	12	13	15
122,500	2	2	3	3	3	4	4	5	5	6	7	7	8	9	10	11	12	13	14
120,000	2	2	2	3	3	4	4	5	5	6	7	7	8	9	10	11	12	13	14
117,500	1	2	2	3	3	3	4	4	5	6	6	7	8	9	10	11	12	13	14
115,000	1	1	2	2	3	3	4	4	5	5	6	7	8	8	9	10	11	13	14
112,500	1	1	2	2	2	3	3	4	5	5	6	7	7	8	9	10	11	12	14
110,000	1	1	1	2	2	3	3	4	4	5	6	6	7	8	9	10	11	12	13
107,500	0	1	1	1	2	2	3	3	4	5	5	6	7	8	9	10	11	12	13
105,000	0	0	1	1	2	2	3	3	4	4	5	6	7	7	8	9	10	12	13
102,500		0	0	1	1	2	2	3	3	4	5	5	6	7	8	9	10	11	13
100,000			0	0	1	1	2	2	3	4	4	5	6	7	8	9	10	11	12
97,500				0	0	1	1	2	3	3	4	5	5	6	7	8	9	11	12
95,000					0	0	1	2	2	3	4	4	5	6	7	8	9	10	11
92,500						0	1	1	2	2	3	4	5	5	6	7	9	10	11
90,000							0	1	1	2	3	3	4	5	6	7	8	9	11
87,500								0	1	1	2	3	4	4	5	6	8	9	10
85,000									0	1	1	2	3	4	5	6	7	8	9
82,500										0	1	1	2	3	4	5	6	8	9
80,000											0	1	2	3	4	5	6	7	8
	PERCENT LOSS FROM STAND REDUCTION																		

TABLE F: INDETERMINATE SOYBEAN STAND REDUCTION LOSS VC – R1 STAGES (Page 2 of 3)

Original Stand Plants/Acre	REMAINING PLANTS PER ACRE (000's omitted)																							
	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0
180,000	18	19	20	22	24	26	28	30	32	35	38	40	44	47	51	55	59	64	69	74	80	86	93	100
175,000	17	19	20	22	24	26	28	30	32	35	37	40	44	47	51	55	59	64	69	74	80	86	93	100
170,000	17	19	20	22	24	26	28	30	32	35	37	40	44	47	51	55	59	64	69	74	80	86	93	100
165,000	17	19	20	22	24	25	28	30	32	35	37	40	43	47	51	55	59	64	69	74	80	86	93	100
160,000	17	19	20	22	23	25	27	30	32	35	37	40	43	47	51	55	59	64	69	74	80	86	93	100
155,000	17	18	20	22	23	25	27	30	32	34	37	40	43	47	51	55	59	63	68	74	80	86	93	100
150,000	17	18	20	22	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
145,000	17	18	20	21	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
140,000	17	18	20	21	23	25	27	29	32	34	37	40	43	47	50	54	59	63	68	74	80	86	93	100
135,000	16	18	19	21	23	25	27	29	31	34	37	40	43	46	50	54	58	63	68	74	80	86	93	100
130,000	16	18	19	21	23	24	27	29	31	34	37	40	43	46	50	54	58	63	68	74	79	86	93	100
125,000	16	17	19	21	22	24	26	29	31	33	36	39	43	46	50	54	58	63	68	74	79	86	93	100
122,500	16	17	19	20	22	24	26	28	31	33	36	39	42	46	50	54	58	63	68	73	79	86	93	100
120,000	16	17	19	20	22	24	26	28	31	33	36	39	42	46	50	54	58	63	68	73	79	86	93	100
117,500	15	17	18	20	22	24	26	28	30	33	36	39	42	46	49	54	58	63	68	73	79	86	93	100
115,000	15	17	18	20	22	24	26	28	30	33	36	39	42	46	49	53	58	63	68	73	79	86	93	100
112,500	15	16	18	20	21	23	25	28	30	33	36	39	42	45	49	53	58	63	68	73	79	86	93	100
110,000	15	16	18	19	21	23	25	28	30	33	35	38	42	45	49	53	58	62	68	73	79	86	93	100
107,500	14	16	17	19	21	23	25	27	30	32	35	38	42	45	49	53	58	62	67	73	79	86	92	100
105,000	14	16	17	19	21	23	25	27	30	32	35	38	41	45	49	53	57	62	67	73	79	85	92	100
102,500	14	15	17	19	20	22	25	27	29	32	35	38	41	45	49	53	57	62	67	73	79	85	92	100
100,000	14	15	17	18	20	22	24	27	29	32	35	38	41	45	48	53	57	62	67	73	79	85	92	100
97,500	13	15	16	18	20	22	24	26	29	31	34	37	41	44	48	52	57	62	67	73	79	85	92	100
95,000	13	14	16	18	19	21	24	26	28	31	34	37	40	44	48	52	57	62	67	73	79	85	92	100
92,500	12	14	15	17	19	21	23	26	28	31	34	37	40	44	48	52	56	61	67	72	79	85	92	100
90,000	12	13	15	17	19	21	23	25	28	30	33	36	40	43	47	52	56	61	67	72	78	85	92	100
87,500	11	13	15	16	18	20	22	25	27	30	33	36	39	43	47	51	56	61	66	72	78	85	92	100
85,000	11	12	14	16	18	20	22	24	27	30	33	36	39	43	47	51	56	61	66	72	78	85	92	100
82,500	10	12	13	15	17	19	21	24	26	29	32	35	39	42	46	51	55	60	66	72	78	85	92	100
80,000	10	11	13	15	17	19	21	23	26	29	32	35	38	42	46	50	55	60	66	72	78	85	92	100
	PERCENT LOSS FROM STAND REDUCTION																							

TABLE F: INDETERMINATE SOYBEAN STAND REDUCTION LOSS VC – R1 STAGES (Page 3 of 3)

Original Stand Plants/Acre	REMAINING PLANTS PER ACRE (000's omitted)																													
	77.5	75	72.5	70	67.5	65	62.5	60	57.5	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20	17.5	15	12.5	10	7.5	5	2.5	0
77,500	0	1	2	3	4	5	6	8	9	10	12	14	16	18	20	23	25	28	31	34	38	42	46	50	55	60	65	71	78	85	92	100
75,000		0	1	2	3	4	5	7	8	10	11	13	15	17	19	22	25	27	30	34	37	41	45	50	54	60	65	71	78	84	92	100
72,500			0	1	2	3	4	6	7	9	11	12	14	16	19	21	24	27	30	33	37	41	45	49	54	59	65	71	77	84	92	100
70,000				0	1	2	4	5	6	8	10	11	13	16	18	20	23	26	29	32	36	40	44	49	54	59	64	71	77	84	92	100
67,500					0	1	2	4	5	7	9	11	13	15	17	20	22	25	28	32	35	39	44	48	53	58	64	70	77	84	92	100
65,000						0	1	3	4	6	8	9	11	14	16	19	21	24	27	31	35	39	43	47	52	58	64	70	77	84	92	100
62,500							0	1	3	5	6	8	10	13	15	17	20	23	26	30	34	38	42	47	52	57	63	69	76	84	91	100
60,000								0	2	3	5	7	9	11	14	16	19	22	25	29	33	37	41	46	51	57	63	69	76	83	91	100
57,500									0	2	4	5	8	10	12	15	18	21	24	28	32	36	40	45	50	56	62	68	76	83	91	100
55,000										0	2	4	6	8	11	14	16	20	23	27	31	35	39	44	49	55	61	68	75	83	91	100
52,500											0	2	4	7	9	12	15	18	21	25	29	34	38	43	49	54	61	67	75	82	91	100
50,000												0	2	5	7	10	13	16	20	24	28	32	37	42	47	53	60	67	74	82	91	100
47,500													0	2	5	8	11	14	18	22	26	31	35	41	46	52	59	66	73	82	90	100
45,000														0	3	6	9	12	16	20	24	29	34	39	45	51	58	65	73	81	90	100
42,500															0	3	6	10	14	18	22	27	32	37	43	50	57	64	72	81	90	100
40,000																0	3	7	11	15	20	25	30	35	42	48	55	63	71	80	90	100
37,500																	0	4	8	12	17	22	27	33	40	46	54	62	70	79	89	100
35,000																		0	4	9	14	19	25	31	37	44	52	60	69	79	89	100
32500																			0	5	10	15	21	28	34	42	50	58	68	78	88	100
30,000																				0	5	11	17	24	31	39	47	56	66	77	88	100
27,500																					0	6	13	20	27	36	44	54	64	75	87	100
25,000																						0	7	14	23	31	41	51	62	74	86	100
22,500																							0	8	17	26	36	47	59	72	85	100
20,000																								0	9	20	31	43	55	69	84	100
17,500																									0	11	23	37	51	66	82	100
15,000																										0	14	28	44	62	80	100
	PERCENT LOSS FROM STAND REDUCTION																															

Soybean yield loss from leaf defoliation. Soybeans still in the vegetative stages have no estimated yield reduction associated with leaf loss, however, significant hail damage also results in cut-off nodes, stem breakage and bruising. These are all factored into calculations on yield reductions.

TABLE H - INDETERMINATE SOYBEAN DEFOLIATION PERCENT OF DAMAGE

Stages	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Vc-Vn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R1	0	0	0	1	1	1	2	2	3	3	3	4	4	4	5	5	6	7	8	10	12
R2	0	0	0	1	2	2	3	4	5	5	6	7	7	8	9	10	12	14	16	19	23
R2.5	0	1	1	2	2	3	3	4	5	6	7	8	9	10	11	13	15	17	20	23	28
R3	0	1	2	3	3	4	4	5	6	7	8	9	11	12	14	16	18	21	24	28	33
R3.5	0	2	3	3	4	5	5	6	7	8	10	11	13	15	18	21	24	27	31	37	45
R4	0	2	3	4	5	6	7	8	9	10	12	14	16	19	22	26	30	34	39	46	56
R4.5	0	2	4	5	6	8	9	10	11	13	15	17	20	23	27	31	37	42	49	56	65
R5	0	2	4	6	7	9	10	11	13	15	17	20	23	27	31	36	43	50	58	66	75
R5.5	0	2	4	6	7	9	10	11	13	15	17	20	23	27	31	36	43	50	58	66	75
R6	0	1	1	3	6	8	9	10	11	13	14	16	18	20	23	27	31	36	41	47	53
R6.5	0	0	0	0	1	1	1	2	3	3	4	5	5	6	8	11	13	16	18	20	23

Stem bruising. The most unpredictable damage to soybeans is stem bruising. A severe bruise is one that penetrates and partially dries or discolors the pith tissue. The pith is the soft white tissue in the center of the stem. Fields with severe stem bruising are usually deferred to harvest because of concerns with lodging.

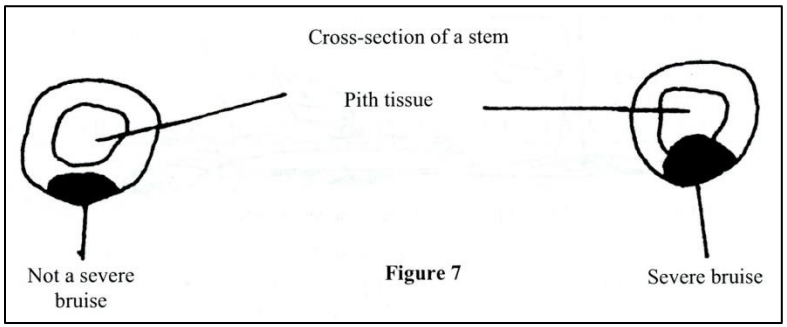

Figure 7

Soybean yield loss from nodes cut-off or broken over. Figures 5 and 6 provide examples of cut-off and broken nodes, respectively.

STAGE OF GROWTH	PERCENTAGE OF NODES CUTOFF/BROKEN OVER																				
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
V1-VN	0	0	0	0	0	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.0	3.0	3.0	3.0	3.0
R1	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0
R2	1.0	1.4	1.8	2.2	2.6	3.0	3.2	3.4	3.6	3.8	4.0	4.4	4.8	5.2	5.6	6.0	6.2	6.4	6.6	6.8	7.0
R2.5	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	6.6	7.2	7.8	8.4	9.0	9.2	9.4	9.6	9.8	10.0
R3	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	9.6	10.2	10.8	11.4	12.0	12.4	12.8	13.2	13.6	14.0
R3.5	4.0	4.8	5.6	6.4	7.2	8.0	8.8	9.6	10.4	11.2	12.0	12.8	13.6	14.4	15.2	16.0	16.6	17.2	17.8	18.4	19.0
	PERCENT DAMAGE																				

STAGE OF GROWTH	PERCENTAGE OF NODES CUTOFF/BROKEN OVER																				
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
V1-VN	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.4
R1	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.4	7.8	8.2	8.6	9.0	9.2	9.4	9.6	9.8	10.0	10.2
R2	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.4	9.8	10.2	10.6	11.0	11.2	11.4	11.6	11.8	12.0	12.2
R2.5	10.4	10.8	11.2	11.6	12.0	12.4	12.8	13.2	13.6	14.0	14.4	14.8	15.2	15.6	16.0	16.4	16.8	17.2	17.6	18.0	18.4
R3	14.6	15.2	15.8	16.4	17.0	17.4	17.8	18.2	18.6	19.0	19.6	20.2	20.8	21.4	22.0	22.6	23.2	23.8	24.4	25.0	25.6
R3.5	19.8	20.6	21.4	22.2	23.0	23.8	24.6	25.4	26.2	27.0	27.8	28.6	29.4	30.2	31.0	31.8	32.6	33.4	34.2	35.0	35.8
	PERCENT DAMAGE																				

STAGE OF GROWTH	PERCENTAGE OF NODES CUTOFF/BROKEN OVER																		
	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65*
V1-VN	7.8	8.2	8.6	9.0	9.4	9.8	10.2	10.6	11.0	11.6	12.2	12.8	13.4	14.0	14.8	15.6	16.4	17.2	18.0
R1	10.4	10.6	10.8	11.0	11.6	12.2	12.8	13.4	14.0	14.6	15.2	15.8	16.4	17.0	17.6	18.2	18.8	19.4	20.0
R2	12.4	12.6	12.8	13.0	13.6	14.2	14.8	15.4	16.0	16.6	17.2	17.8	18.4	19.0	19.8	20.6	21.4	22.2	23.0
R2.5	18.8	19.2	19.6	20.0	20.8	21.6	22.4	23.2	24.0	24.8	25.6	26.4	27.2	28.0	28.8	29.6	30.4	31.2	32.0
R3	26.2	26.8	27.4	28.0	28.8	29.6	30.4	31.2	32.0	32.8	33.6	34.4	35.2	36.0	37.0	38.0	39.0	40.0	41.0
R3.5	36.6	37.4	38.2	39.0	39.8	40.6	41.4	42.2	43.0	44.2	45.4	46.6	47.8	49.0	49.8	50.6	51.4	52.2	53.0
	PERCENT DAMAGE																		

* If more than 65 percent of the nodes are cutoff or broken over, it is impossible to predict the percentage of loss that may result. Growing conditions following the damage will dictate the extent of recovery that may occur. The adjustment should be deferred to R7 as instructed in the appraisal instructions and the Seed Count Method should be used.

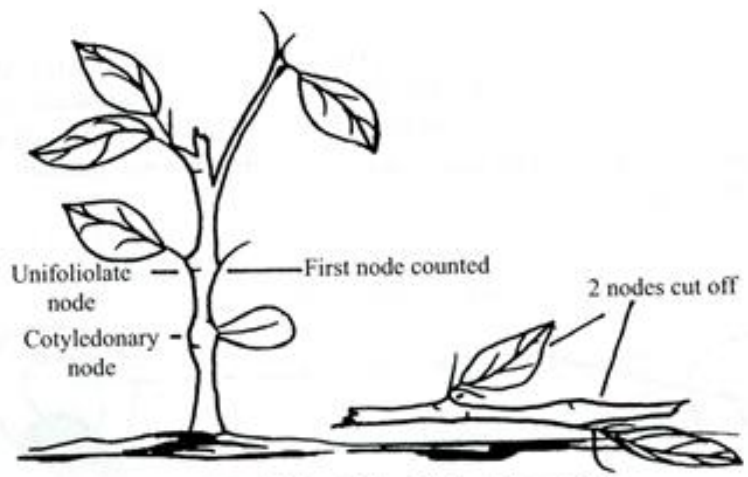

Figure 5 Cut off plant (V5) with 2 nodes cut off.

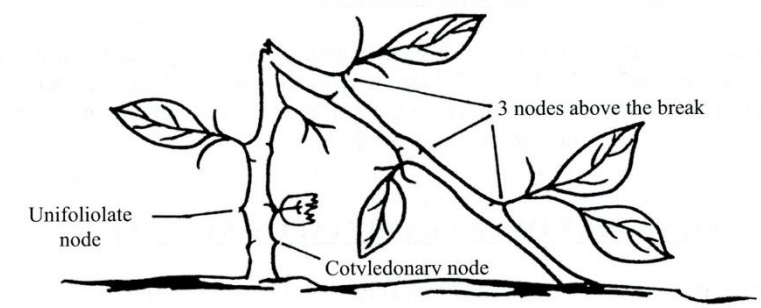

Figure 6 Broken over plant (V6) with 3 nodes above the break.