

**Table 5. Soybean composition response to weather and non-agronomic variables.**

Variable	Impact on	
	Protein	Oil
High temperatures	Inconclusive	Inconclusive
Early season drought	-	+
Late season drought <sup>a</sup>	+	-
Early frost/cold temperatures	-	- <sup>b</sup>
Additional soil nitrogen	+	-
Increased fertility (P, S)	+	+
Late planting	+	-
Insect defoliation	-	-
Insect depodding	+	Inconclusive
Inoculation with Rhizobia (N-fixing bacteria)	+	-

<sup>a</sup> After Westgate et al. (1999)

<sup>b</sup> Oil reduced because of additional refining needs

+ = increase; - = decrease

**Table 6. Soybean Component Premium Schedule, 2002 crop**

Percent Oil @ As-Is Moisture	Premium	Protein Premium 37% or Higher @ As-Is Moisture
19.4 or less	None	None
19.5 to 19.8	2.0 cents/bu	3.0 cents/bu
19.9 to 20.1	3.0 cents/bu	3.0 cents/bu
20.2 to 20.4	4.0 cents/bu	3.0 cents/bu
20.5 to 20.7	5.0 cents/bu	3.0 cents/bu
20.8 to 21.0	6.0 cents/bu	3.0 cents/bu
21.1 and higher	7.0 cents/bu	3.0 cents/bu

\* Minimum oil required is 19.5% to receive protein premium

Source: Ag Processing, Inc., AGP (2002).

**Table 7. Examples of soybean and soybean meal quality.**

Soybean Protein (%) <sup>a</sup>	Soybean Meal <sup>b</sup>				
	Protein (%)	Lysine		TSAA	
		% of Protein	% by Weight	% of Protein	% by Weight
34	48	6.39	3.07	3.34	1.60
36	48	6.29	3.02	3.15	1.51
38	48	6.09	2.92	2.98	1.43
32	46.5	6.49	3.02	3.54	1.65

<sup>a</sup> Basis 13% moisture

<sup>b</sup> Basis 12% moisture