

Appendix table 1—Estimated regression coefficients in wheat acreage response on NFA by production region¹

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
Central and Northern Plains	Wheat net returns	0.147* (2.29) ²	0.359* (1.90)
	Soybean net returns	-.028 (-.90)	-.005 (-.17)
	Barley net returns	-.146** (-2.90)	—
	Sorghum net returns	—	-.354* (-1.86)
Southern Plains	Wheat net returns	.632** (5.32)	.749** (6.37)
	Cotton net returns	-.060* (-2.18)	-.062* (-2.02)
	Corn net returns	-.072* (-2.44)	-.095 (-1.49)
	Sorghum net returns	-.150 (-1.32)	-.431* (-1.84)
North Central	Wheat net returns	.095 (1.65)	.169** (4.43)
	Corn net returns	-.007 (-.40)	-.120** (-6.63)
	Soybean net returns	-.019 (-.65)	-.049 (-.96)
	Oat net returns	-.418** (-5.00)	—
Southeast and Delta	Wheat net return	.226** (4.03)	.369** (7.28)
	Soybean net returns	.265** (4.65)	.417** (4.28)
	Corn net returns	-.122** (-2.77)	-.199** (-2.72)

¹Estimates for the Central and Northern Plains and the North Central regions reflect selected theoretical restrictions.

²Figures in parentheses are t-ratios.

— = Not applicable.

* = Significant at 5-percent level of significance.

** = Significant at 1-percent level of significance.

Appendix table 2—Estimated regression coefficients in corn acreage response on NFA by production region¹

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound) ³
North Central	Corn net returns	0.336** (4.63) ²	0.255** (4.68)
	Soybean net returns	-.324** (-4.53)	-.215** (-3.65)
	Wheat net returns	-.012 (-1.54)	-.040 (-1.34)
Central and Northern Plains	Corn net returns	.201* (2.04)	.370** (5.38)
	Wheat net returns	-.092 (-.85)	-.185* (-1.86)
	Soybean net returns	-.050 (-1.32)	—
	Sorghum net returns	-.059 (-1.51)	-.185* (-1.71)
Southeast and Delta	Corn net returns	.024** (3.57)	.142** (7.41)
	Cotton net returns	-.026* (-1.78)	-.311* (-2.13)
	Soybean net returns	-.049 (-1.32)	—
	Wheat net returns	-.073** (-3.07)	-.086** (-3.14)
Southern Plains	Corn net returns	.095* (2.33)	.205** (3.14)
	Cotton net returns	-.119** (-3.54)	-.216* (-2.23)
	Sorghum net returns	-.150 (-1.36)	-.235** (-2.53)

¹Estimates for the Central and Northern Plains and North Central regions reflect theoretical restrictions of symmetry and linear homogeneity.

²Figures in parentheses are t-ratios.

³Regression coefficients in Model II, in a few cases, are smaller than those in Model I; however, acreage price elasticities calculated from Model II remain larger than from Model I.

— = Not applicable.

* = Significant at 5-percent level of significance.

** = Significant at 1-percent level of significance.

Appendix table 3—Estimated regression coefficients in sorghum acreage response on NFA by production region¹

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
Central & Northern Plains	Sorghum net returns	0.086 (1.23) ²	0.050 (1.03)
	Wheat net returns	-.689** (-2.68)	-.470** (-2.61)
	Corn net returns	-.088 (-.81)	—
Southern Plains	Sorghum net returns	.735** (5.10)	.759** (4.68)
	Cotton net returns	-.048* (-2.41)	-.063** (-2.99)
	Corn net returns	-.057* (-2.20)	-.067** (-2.55)
	Wheat net returns	-.399* (-2.05)	-.419* (-2.17)
Southeast & Delta	Sorghum net returns	.104** (3.07)	.128* (2.07)
	Soybean net returns	-.243** (-3.32)	-.256** (-3.31)

¹Model I estimates for the Southeast and Delta regions reflect theoretical restriction of symmetry.

²Figures in parentheses are t-ratios.

— = Not applicable.

* = Significant at 5-percent level of significance.

** = Significant at 1-percent level of significance.

Appendix table 4—Estimated regression coefficients in barley acreage response on NFA by production region (with restrictions)

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
Central and Northern Plains	Barley net returns	0.041 (.62) ¹	0.071 (1.07)
	Corn net returns	-.101 (-1.68)	-.116* (-1.93)
	Sorghum net returns	-.735* (-2.30)	-.679* (-2.12)

¹Figures in parentheses are t-ratios.

* = Significant at 5-percent level of significance.

Appendix table 5—Estimated regression coefficients in oat acreage response on NFA by production region¹

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
North Central	Oat net returns	0.123* (2.29) ²	—
	Wheat net returns	-.123* (-2.30)	—

¹Reflects theoretical restrictions.

²Figures in parentheses are t-ratios.

— = Not applicable.

* = Significant at 5-percent level of significance.

Appendix table 6—Estimated regression coefficients in soybean acreage response on NFA (for program crops) by production region¹

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
North Central	Soybean net returns	0.324** (7.81) ²	—
	Corn net returns	-.324** (-5.19)	—
Central & Northern Plains	Soybean net returns	.103* (2.18)	—
	Corn net returns	-.050 (-1.32)	—
	Wheat net returns	-.053 (-.91)	—
Southeast & Delta	Soybean net returns	.132** (9.13)	—
	Cotton net returns	-.234** (-2.92)	—
	Corn net returns	-.054* (-2.44)	—
	Wheat net returns	-.072** (-2.87)	—

¹Model estimates for the North Central and the Central and Northern Plains regions reflect theoretical restrictions of symmetry and linear homogeneity; estimates for the Southeast and Delta region reflect symmetry restriction.

²Figures in parentheses are t-ratios.

— = Not applicable.

* = Significant at 5-percent level of significance.

** = significant at 1-percent level of significance.

Appendix table 7—Estimated regression coefficients in cotton acreage response on NFA by production region

Region	Explanatory variable	Model I (lower bound)	Model II (upper bound)
Southern Plains	Cotton net returns	0.152** (2.98) ¹	0.277** (5.38)
	Sorghum net returns	-.200** (-3.73)	-.306** (-3.26)
Southeast and Delta	Cotton net returns	.032 (1.37)	.142** (5.38)
	Soybean net returns	—	-.370** (-3.19)
	Corn net returns	-.101 (-1.44)	-.232** (-2.91)
	Wheat net returns	-.160** (-2.87)	-.223** (-2.55)

¹Figures in parentheses are t-ratios.

— = Not applicable.

* = Significant at 5-percent level of significance.

** = Significant at 1-percent level of significance.

Appendix table 8—Acreage price elasticities for corn, soybeans, wheat, and oats in the North Central region, without theoretical restrictions

Item	1986-90	NFA acreage price elasticity		Whole-farm under 1996 Act	
		This study ¹	Adams	This study ¹	Adams
Corn acreage elasticities					
Corn price	0.159	1.465	0.673	0.293	0.372
Soybean price	-0.088	-1.258	-0.364	-0.203	-0.213
Wheat price	-0.004	-0.149	-0.044	-0.018	—
Soybean acreage elasticities					
Soybean price	0.254	2.440	0.835	0.348	0.323
Corn price	-0.213	-1.272	-0.900	-0.261	-0.273
Wheat price	-0.007	0.191	-0.088	0.004	—
Wheat acreage elasticities					
Wheat price	0.553	0.523	0.901	0.586	0.670
Soybean price	-0.109	-0.517	-0.229	-0.149	-0.209
Oat price	—	-0.113	—	-0.098	—
Oat acreage elasticities					
Oat price	0.430	0.041	2.199	0.460	0.546
Wheat price	-0.013	-0.527	-0.823	-0.017	—

¹Average of Model I (lower bound) and Model II (upper bound) results.
 — = Not applicable.

Appendix table 9—Acreage price elasticities for corn, soybeans, wheat, and oats in the North Central region, with theoretical restrictions¹

Item	1986-90	NFA acreage price elasticity		Whole-farm under 1996 Act	
		This study ²	Adams	This study ²	Adams
Corn acreage elasticities					
Corn price	0.159	0.995	0.673	0.248	0.372
Soybean price	-0.088	-0.843	-0.364	-0.164	-0.213
Wheat price	—	-0.113	-0.044	-0.056	—
Soybean acreage elasticities					
Soybean price	0.254	1.286	0.835	0.298	0.323
Corn price	-0.213	-1.533	-0.900	-0.274	-0.273
Wheat price	—	—	-0.088	—	—
Wheat acreage elasticities					
Wheat price	0.553	0.283	0.901	0.567	0.670
Soybean price	-0.109	-0.143	-0.229	-0.117	-0.209
Oat price	—	-0.090	—	-0.096	—
Corn price	-0.133	-0.228	-0.635	-0.138	-0.280
Oat acreage elasticities					
Oat price	0.430	0.065	2.199	0.461	0.546
Wheat price	—	-0.525	-0.823	-0.030	—
Corn price	-0.181	—	-0.144	—	-0.304
Soybean price	-0.149	—	-2.625	—	-0.227

¹Estimates from this study reflect theoretical restrictions as indicated in appendix tables 1, 2, 5, and 6.

²Average of Model I (lower bound) and Model II (upper bound) results.

— = Not applicable.

Appendix table 10—Acreage price elasticities for wheat, corn, soybeans, sorghum, and barley in the Central & Northern Plains

Item	1986-90	NFA acreage price elasticity		Whole-farm under 1996 Act	
		This study ¹	Adams	This study ¹	Adams
Wheat acreage elasticities					
Wheat price	0.201	0.508	0.811	0.240	0.356
Soybean price	—	-0.058	-0.048	-0.010	—
Sorghum price	-0.112	-0.560	-0.109	-0.072	-0.159
Barley price	-0.090	-0.652	-0.112	-0.080	-0.118
Corn acreage elasticities					
Corn price	0.101	1.711	0.986	0.242	0.381
Wheat price	—	-0.289	-0.207	-0.041	—
Soybean price	-0.021	-0.099	-0.463	-0.027	-0.138
Sorghum price	-0.015	-0.291	-0.036	-0.040	-0.094
Soybean acreage elasticities					
Soybean price	0.174	1.022	1.223	0.198	0.371
Wheat price	—	-0.484	-0.265	-0.042	—
Corn price	-0.197	-1.075	-0.748	-0.221	-0.321
Sorghum acreage elasticities					
Sorghum price	0.462	0.157	1.770	0.446	-0.637
Corn price	-0.382	-0.746	-0.790	-0.401	-0.604
Wheat price	-0.157	-1.927	-0.567	-0.251	-0.220
Barley acreage elasticities					
Barley price	0.201	0.328	2.841	0.206	0.570
Corn price	—	-1.048	-0.615	-0.062	—
Sorghum price	—	-1.258	—	-0.070	—
Wheat price	-0.098	—	-1.131	—	-0.351

¹Average of Model I (lower bound) and Model II (upper bound) results; reflect theoretical restrictions as indicated in appendix tables 1, 2, and 6.
— = Not applicable.

Appendix table 11—Acreage price elasticities for cotton, corn, wheat, sorghum, and soybeans in the Southeast and Delta regions

Item	1986-90	NFA acreage price elasticity		Whole-farm under 1996 Act	
		This study ¹	Adams	This study ¹	Adams
Cotton acreage elasticities					
Cotton price	0.424	0.586	0.900	0.435	0.731
Soybean price	-0.130	-0.710	-0.490	-0.183	-0.223
Corn price	—	-0.404	—	-0.154	—
Wheat price	-0.113	-0.335	-0.080	-0.136	-0.211
Corn acreage elasticities					
Corn price	0.785	1.034	0.474	0.794	0.907
Cotton price	-0.360	-0.467	-0.107	-0.364	-0.642
Soybean price	-0.334	-0.180	-0.178	-0.326	-0.393
Wheat price	-0.281	-0.378	-0.024	-0.285	-0.366
Wheat acreage elasticities					
Wheat price	0.216	1.462	2.226	0.267	0.546
Soybean price	0.136	1.611	-1.012	0.164	0.272
Corn price	-0.161	-0.942	-0.607	-0.193	-0.428
Sorghum price	—	—	-0.092	—	-0.126
Cotton price	-0.316	—	-1.017	—	-0.659
Sorghum acreage elasticities					
Sorghum price	0.372	1.694	2.179	0.406	0.742
Soybean price-	-0.515	-2.288	-0.646	-0.525	-0.673
Corn price	—	—	-0.907	—	—
Soybean acreage elasticities					
Soybean price	0.199	0.658	0.598	0.221	0.411
Cotton price	-0.080	-1.178	-0.149	-0.095	-0.144
Corn price	-0.051	-1.127	—	-0.088	-0.144
Wheat price	—	-0.769	-0.414	-0.008	—
Sorghum price	-0.028	—	-0.102	—	-0.055

¹Average of Model I (lower bound) and Model II (upper bound) results; reflect theoretical restrictions as indicated in appendix tables 3 and 6. — = Not applicable.

Appendix table 12—Acreage price elasticities for cotton, corn, wheat, and sorghum in the Southern Plains region

Item	1986-90	NFA acreage price elasticity		Whole-farm under 1996 Act	
		This study ¹	Adams	This study ¹	Adams
Cotton acreage elasticities					
Cotton price	0.345	2.282	0.797	0.480	0.564
Sorghum price	-0.193	-0.727	-0.450	-0.231	-0.361
Corn acreage elasticities					
Corn price	0.311	1.789	0.499	0.402	0.398
Cotton price	—	-0.363	-0.023	-0.049	-0.043
Sorghum price	—	-0.743	-0.015	-0.047	-0.021
Soybean price	-0.123	—	-0.220	—	-0.245
Wheat acreage elasticities					
Wheat price	0.336	1.319	0.960	0.393	0.443
Cotton price	—	-0.815	-0.088	-0.073	-0.089
Corn price	—	-1.009	-0.104	-0.087	-0.064
Sorghum price	—	-1.102	-0.109	-0.166	-0.159
Sorghum acreage elasticities					
Sorghum price	0.604	3.034	1.314	0.728	0.766
Cotton price	-0.423	-0.952	-0.454	-0.450	-0.500
Corn price	—	-0.845	-0.763	-0.247	-0.298
Wheat price	—	-0.877	-0.478	-0.121	-0.171

¹Average of Model I (lower bound) and Model II (upper bound) results.
 — = Not applicable.

Appendix table 13—Acreage price elasticities for wheat in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
Central and Northern Plains					
Wheat price	0.201	0.271	0.240	+19.4	-11.4
Barley price	-0.090	-0.086	-0.072	- 20.0	-16.3
Sorghum price	-0.112	-0.118	-0.080	- 28.6	-32.2
Soybean price	—	-0.005	-0.010	—	+100.0
Southern Plains					
Wheat price	0.336	0.398	0.393	+17.0	- 1.3
Sorghum price	—	-0.009	-0.166	—	+1,744.4
Corn price	—	—	-0.087	—	—
Cotton price	—	-0.001	-0.073	—	+7,200.0
Soybean price	—	-0.002	—	—	—
North Central					
Wheat price	0.553	0.594	0.567	+2.5	- 4.5
Corn price	-0.133	-0.186	-0.138	+3.8	-25.8
Soybean price	-0.109	-0.118	-0.117	+7.3	-0.8
Oat price	—	—	-0.096	—	—
Southeast and Delta					
Wheat price	0.216	0.404	0.267	+23.6	-23.9
Corn price	-0.161	-0.225	-0.193	+19.9	-14.2
Soybean price	0.136	0.117	0.164	+20.6	+40.2
Cotton price	-0.316	-0.345	—	—	—

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (average of Model I and Model II results); estimates for the Central and Northern Plains and the North Central regions reflect selected theoretical restrictions.

Appendix table 14—Acreage price elasticities for corn in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
North Central					
Corn price	0.159	0.173	0.248	+56.0	+43.4
Soybean price	-0.088	-0.104	-0.164	+86.4	+57.7
Wheat price	—	-0.004	-0.056	—	+1,300.0
Central and Northern Plains					
Corn price	0.101	0.179	0.242	+139.6	+35.2
Wheat price	—	-0.017	-0.041	—	+141.2
Soybean price	-0.021	-0.052	-0.027	+28.6	-48.1
Sorghum price	-0.015	-0.008	-0.040	+166.7	+400.0
Southeast and Delta					
Corn price	0.785	0.837	0.794	+1.1	-5.1
Cotton price	-0.360	-0.343	-0.364	+1.1	+6.1
Soybean price	-0.334	-0.312	-0.326	-2.4	+4.5
Wheat price	-0.281	-0.253	-0.285	+1.4	+12.6
Southern Plains					
Corn price	0.311	0.311	0.402	+29.3	+29.3
Cotton price	—	-0.001	-0.049	—	+4,800.0
Sorghum price	—	-0.003	-0.047	—	+1,466.7
Soybean price	-0.123	-0.111	—	—	—

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (average of Model I and Model II results); estimates for the Central and Northern Plains and North Central regions reflect theoretical restrictions of symmetry and linear homogeneity.

Appendix table 15—Acreage price elasticities for sorghum in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
Central and Northern Plains					
Sorghum price	0.462	0.642	0.446	-3.5	-30.5
Corn price	-0.382	-0.470	-0.401	+5.0	-14.7
Wheat price	-0.157	-0.196	-0.251	+59.9	+28.1
Soybean price	—	-0.026	—	—	—
Southern Plains					
Sorghum price	0.604	0.666	0.728	+20.5	+9.3
Cotton price	-0.423	-0.344	-0.450	+6.4	+30.8
Corn price	—	-0.042	-0.247	—	+416.7
Wheat price	—	-0.021	-0.121	—	+476.2
Southeast and Delta					
Sorghum price	0.372	0.398	0.406	+9.1	+2.0
Cotton price	—	-0.019	—	—	—
Corn price	—	-0.022	—	—	—
Soybean price	-0.515	-0.345	-0.525	+1.9	+50.7

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (average of Model I and Model II results); Model I results for the Southeast and Delta regions reflect theoretical restriction of symmetry.

Appendix table 16—Acreage price elasticities for barley in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
Central and Northern Plains					
Barley price	0.201	0.645	0.206	+2.5	-68.1
Corn price	—	—	-0.062	—	—
Sorghum price	—	—	-0.070	—	—
Soybean price	—	-0.024	—	—	—
Wheat price	-0.098	-0.147	—	—	—

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (average of Model I and Model II results).

Appendix table 17—Acreage price elasticities for oats in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
North Central					
Oat price	0.430	0.599	0.461	+7.2	-23.0
Wheat price	—	-0.013	-0.030	—	+130.8
Corn price	-0.181	-0.297	—	—	—
Soybean price	-0.149	-0.270	—	—	—

— = Not applicable.

¹Estimates obtained by FAPRI (Adams).

²Estimates obtained from this study (Model I results); reflect theoretical restrictions.

Appendix table 18—Acreage price elasticities for soybeans in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
North Central					
Soybean price	0.254	0.262	0.298	+17.3	+13.7
Corn price	-0.213	-0.265	-0.274	+28.6	+3.4
Barley price	—	-0.001	—	—	—
Oat price	—	-0.002	—	—	—
Sorghum price	—	-0.002	—	—	—
Wheat price	—	-0.007	—	—	—
Central and Northern Plains					
Soybean price	0.174	0.263	0.198	+13.8	-24.7
Wheat price	—	-0.030	-0.042	—	+40.0
Corn price	-0.197	-0.259	-0.221	+12.2	-14.7
Barley price	—	-0.010	—	—	—
Oat price	—	-0.005	—	—	—
Sorghum price	—	-0.024	—	—	—
Southeast and Delta					
Soybean price	0.199	0.217	0.221	+11.1	+1.8
Cotton price	-0.080	-0.086	-0.095	+18.8	+10.5
Corn price	-0.051	-0.057	-0.088	+72.5	+54.4
Wheat price	—	-0.028	-0.008	—	-71.4
Sorghum price	-0.028	-0.040	—	—	—
Rice price	—	-0.015	—	—	—

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (Model I results); estimates for the North Central and the Central and Northern Plains regions reflect theoretical restrictions of symmetry and linear homogeneity; estimates for the Southeast and Delta region reflect symmetry restriction.

Appendix table 19—Acreage price elasticities for cotton in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ² (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
Southeast and Delta					
Cotton price	0.424	0.419	0.435	+6.1	+3.8
Soybean price	-0.130	-0.085	-0.183	+40.8	+115.3
Corn price	—	—	-0.154	—	—
Wheat price	-0.113	-0.095	-0.136	+20.4	+43.2
Sorghum price	—	-0.002	—	—	—
Southern Plains					
Cotton price	0.345	0.263	0.480	+39.1	+82.5
Sorghum price	-0.193	-0.171	-0.231	+19.7	+35.1

— = Not applicable.

¹Estimates obtained by Adams.

²Estimates obtained from this study (average of Model I and Model II results).

Appendix table 20—Acreage price elasticities for rice in major production regions under the 1996 Act vs. previous legislation

Item	1986-90 ¹ (1)	1991-95 ¹ (2)	1996 Act ¹ (3)	Percent difference	
				(4)=(3) vs. (1)	(5)=(3) vs. (2)
Delta					
Rice price	0.373	0.418	0.733	+96.5	+75.4
Sorghum price	-0.211	-0.178	-0.466	+120.9	+161.8
Soybean price	-0.229	-0.146	-0.500	+118.3	+242.5
Southern Plains					
Rice price	0.227	0.605	0.615	+88.9	+1.7
Far West					
Rice price	0.434	1.693	0.785	+80.9	-67.6

¹Source: Estimates obtained by Adams.

Appendix table 21—National acreage price elasticities for major field crops in the United States¹

Commodity	Acreage price elasticity with respect to a 1-percent change in price of						
	Wheat	Corn	Sorghum	Barley	Oats	Soybeans	Cotton
Wheat	0.340	-0.046	-0.075	-0.076	-0.011	-0.010	-0.014
Corn	-0.065	0.293	-0.010			-0.145	-0.028
Sorghum	-0.168	-0.303	0.550			-0.070	-0.161
Barley	-0.075	-0.038	-0.043	0.282		-0.005	
Oats	-0.082	-0.041		-0.060	0.442		
Soybeans	-0.007	-0.229				0.269	-0.020
Cotton	-0.058	-0.072	-0.103			-0.081	0.466

¹U.S. acreage price elasticities are weighted averages of acreage price elasticities in major production regions based on regional shares of U.S. planted acreage for each crop in 1991-95.

Appendix table 22—Price flexibility functions for the POLYSYS-ERS model by crop

Crop	Price flexibility at various stocks-to-use levels--										
	0.05-0.066	0.066-0.10	0.10-0.15	0.15-0.20	0.20-0.25	0.25-0.30	0.30-0.35	0.35-0.50	0.50-0.55	0.55 -0.60	>0.60
Corn	-5.5	-4.0	-2.8	-2.0	-1.6	-1.4	-1.0	-0.8	-0.8	-0.8	-0.7
Wheat	-6.7	-3.9	-2.7	-2.0	-1.6	-1.4	-1.3	-1.1	-1.1	-1.0	-1.0
Soybeans	-2.6	-1.4	-1.1	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Cotton	—	-4.0	-2.9	-2.1	-1.7	-1.6	-1.2	-1.0	-0.9	-0.9	-0.9
Rice	-3.0	-2.8	-2.2	-1.6	-1.2	-1.2	-1.1	-1.1	-1.0	-1.0	-1.0

— = Not available.

Note: These price flexibilities are derived from ERS in-house work on the price and stocks relationship for major program crops. Price flexibilities for sorghum, barley, and oats are primarily related to corn prices based on the following relationships:

$$\text{LnPsg} = -0.01748 + 0.97813 \text{ LnPcn} - 0.01760 \text{ Ln(S/U)sg}$$

$$\text{LnPbr} = 0.12468 + 0.77268 \text{ LnPcn}$$

$$\text{LnPot} = 1.43659 + 0.57235 \text{ LnPcn} - 0.44132 \text{ Ln(S/U)ot}$$

where Psg, Pbr, Pot, and Pcn refer to the price of sorghum, barley, oats, and corn, respectively, and (S/U) refers to the stocks-to-use ratio.