

ProSoy a Conventional Tofu Line

Table 1. Yield and agronomic data 2001-2004.

Entry	Yield	Maturity	Lodg*	IDC**	Protein***	Oil	Rps	Plant height	Seed size
No. sites	19	19	6	4	11	11		7	4
	bu/A	date	score	score	%	%		inch	seeds/lb
ProSoy	42.6	29-Sept.	2.2	2.7	39.8	19.4	none	37	2700
Proto	38.4	23-Sept.	2.1	3.4	41.0	19.0	none	27	2900
Norpro	36.8	21-Sept.	1.4	3.4	40.5	19.3	none	31	2800
Sargent	43.9	28-Sept.	-----	3.4	37.4	20.9	6	30	-----

*Lodging score: 1-best, 5-worst.

**Iron Deficiency Chlorosis score: 1-best, 5-worst.

***Protein and oil on a 13% moisture basis.

Table 2. Regular tofu yield, textural properties, color and sensory analyses, 2003.

Entry	Tofu yield	Brittleness	Hardness	Elasticity	Color L-value	Color a-value	Color b-value	Sensory Smoothness	Sensory Overall
ProSoy	369	1191	5191	21.3	85.1	-3.8	24.9	5.5	5.8
Proto	380	1020	4850	20.7	85.7	-3.3	21.6	5.9	6.4
Norpro	311	1280	5850	22.3	84.6	-2.9	20.6	4.8	5.1

Table 3. Soft tofu yield, textural properties, color and sensory analyses, 2003.

Entry	Tofu yield	Brittleness	Hardness	Elasticity	Color L-value	Color a-value	Color b-value	Sensory Smoothness	Sensory Overall
ProSoy	482	750	2450	17.9	----	----	----	5.8	5.3
Proto	446	760	2520	18.9	----	----	----	5.5	5.3
Norpro	432	993	2900	14.2	----	----	----	5.5	5.8

Table 4. Proximate composition of soymilk, and regular tofu, 2003.

Entry	Soymilk moisture %	Soymilk protein recovery %	Tofu moisture %	Tofu protein recovery %
ProSoy	93.4	71.2	86.0	67.7
Proto	93.1	79.5	88.2	63.4
Norpro	93.5	70.8	88.3	61.2

ProSoy was first tested as ND99-4022. ProSoy is a non-GMO experimental soybean line intended for the tofu specialty market. It has high yield and is moderately tolerant to iron deficiency chlorosis. It is a 0.8 maturity line. The maturity of this line is best suited for Richland, Sargent, and LaMoure counties.

This line does not have a gene for phytophthora root rot resistance. ProSoy has the pedigree Norpro*Kato. ProSoy has purple flower color, grey pubescence, brown pod color, dull yellow seed coat and yellow hila.

Tofu and soymilk quality data were provided by Dr. Sam Chang, NDSU.