AF1615-1 Grower Demonstration, 2001

General Comments:
AF1615-1 was developed by Al Reeves at the University of Maine and has been evaluated in the Hastings REC variety evaluation program for the last three years. It has generally produced more cwt/A than the standard round white variety, La Chipper, in small plot trials. AF1615-1 skin color and quality characteristics make it a potential new round white variety adapted for production in North Florida.

Seed was available this season for large-scale grower trials. Four farms in Flagler, Putnam, and St. Johns counties participated in the study. Plot size ranged from one to 20 acres. Growers used their standard production program for La Chipper to produce the new clone. No coordinated production program was developed.

Ten row feet were harvested at four locations in each field. All harvested potatoes were graded at the Hastings REC. Results are reported in Tables 29 and 30. Potato tuber skin color at all sites was tan to buff with a moderately smooth texture. Tuber flesh was cream. Tuber shape was rated as round to oblong to mostly oblong with an eye depth of shallow to very shallow. Overall external tuber appearance was noted as good to excellent. Specific gravity for AF1615-1 tubers ranged from 1.064 to 1.074. No internal quality problems were noted in tubers at any site.

In general, AF1615-1 took longer to mature compared to La Chipper (10-14 days). Growers also remarked that AF1615-1 had a rougher skin texture than La Chipper, which was not acceptable. Growers using higher nitrogen rates experienced a rougher skinned potato. This observation was verified at the Hastings REC in the AF1615-1 and La Chipper Nitrogen Rate and Plant Spacing Trial. Trials are planned for the 2001 season to further evaluate the influence of cultural practices on tuber quality.

Florida Table 29. AF1615-1 Grower Demonstration. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of AF1615-1 grown at 4 different growers fields around Hastings, FL. - 2001.

Cooperator	Total Yield (cwt/A)	Marketable Yield [1] (cwt/A)	Size Distribution by Class (%) [2] 1	2	3	4	5	Size Distribution (%) 2 to 4	3 to 4	Specific Gravity
Site A	394	361	6	75	18	1	0	94	19	1.068
Site B	248	216	14	79	8	0	0	87	8	1.064
Site C	280	239	15	76	9	0	0	85	9	1.074
Site D	172	134	24	64	13	0	0	77	13	1.064
Average	274	238	15	74	12	0	0	86	12	1.068

Standard grower cultural practices were used. Plots harvested on May 2, 2001.

[1] - Marketable Yield: size classes 2 to 4

[2] - Size classes: 1 = <1 7/8", 2 = 1 7/8 to 2.5", 3 = 2.5 to 3.25", 4 = 3.25 to 4", 5 = >4"

Florida Table 30. AF1615-1 Grower Demonstration. Yield, tuber characteristcs, and internal defects of AF1615-1 grown at 4 different growers fields around Hastings, FL - 2001.

	Total	Marketable		Tuber Characteristics						Internal Defects			
Cooperator	Yield (cwt/A)	Yield (cwt/A)	Vine Maturity	IFC	SC	ST	TS	ED	APP	HH	BR	CRS	INT
Site A	394	361	*na*	2.0	8.0	8.0	4.0	8.0	8.0	0	0	0	0
Site B	248	216	*na*	2.0	8.0	8.0	3.0	8.0	8.0	0	0	0	0
Site C	280	239	*na*	2.0	8.0	8.0	4.0	7.0	8.0	0	0	0	0
Site D	172	134	*na*	2.0	7.0	8.0	4.0	7.0	8.0	0	0	0	0

[1] - See rating system outlined in Florida Rating Code Table.

[2] - Percent of tubers showing defects. HH = hollow heart, BR = brown rot, CRS = corky ring spot, INT = internal browning.