

2004 Potato Project

Quail Hill Farm (Amagansett, NY)

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This study evaluated yield and pest resistance of 11 potato varieties. The plots were two rows wide on 54 inch centers by 11 feet. Seed pieces were spaced nine inches apart with 28 pieces for each plot. The experimental design consisted of a randomized complete block with two replications. On May 4, 2004 potatoes were planted. The fertilizer applied was 4-3-3 from North Country Organics at a rate of 400 lbs per acre plus compost application in 2003. On June 29, 200 PyGanic (pyrethrins 1.40%) was applied for potato leafhopper control followed by two subsequent applications each two weeks apart. Also applied was *Bacillus thuringiensis* at 2.25 quarts per acre plus one and a half cups of fish oil per acre for Colorado potato beetle control. Both were sprayed on three subsequent occasions. Entrust was also applied once at a rate of 1.2 oz per acre for Colorado potato beetle control.

On October 6, 2004 the potatoes were dug and graded. Yields of all varieties were very low in this study. Many factors contributed to poor yields, including Colorado potato beetle damage. As a result the crop was severely defoliated by July 21, 2004. Additionally, moderate weed pressure developed throughout the season. It was very difficult to evaluate potato leafhopper resistance due to the applications of pyrethrins. PSNT results of 9 ppm NO₃-N (taken June 16, 2004) indicated relatively low levels of nitrogen in the soil for optimum plant growth.

Overall the highest yielders were NY-125 (138 cwt/a) and Rosa (111 cwt/a). Yukon Gold (110 cwt/a) outyielded Keuka Gold (97 cwt/a). All Blue and Adirondack Blue were even at 69 cwt/a.

Quail Hill Farm, Long Island

Trt	Variety	< 2" cwt/A	2" - 4" cwt/A	Total Yield cwt/A
1	Keuka Gold	63.45	33.79	97.24
2	Adirondack Blue	54.38	15.00	69.39
3	Rosa	80.96	30.01	110.97
4	Eva	49.37	26.66	76.03
5	Green Mountain	58.52	29.57	88.09
6	Binjite	31.86	12.14	44.00
7	NY-125	101.90	36.26	138.16
8	NY-126	53.06	32.47	85.54
9	Yukon Gold	54.30	55.26	109.56
10	All Blue	63.27	5.72	68.99
11	Katahdin	44.44	35.99	80.43