

Ithaca- Potato Leafhopper Resistant Alfalfa Variety Trials

[2011 Commercial and Experimental Seeding](#)

[2012 Commercial and Experimental Seeding](#)

[2013 Commercial and Experimental Seeding](#)

[2014 Commercial and Experimental Seeding](#)

***PLH (Potato leafhopper) Damage Score - 1=minor to no damage; 5=severe damage**

PLH populations were at moderately severe levels in 2014.

2014 New York Alfalfa Trials

Cornell University Agricultural Experiment Station, Tompkins Co., Ithaca

Sown May 2011

Cornell University; School of Integrative Plant Science, Plant Breeding and Genetics Section

| Released And | | 2011 | | | | | | | |
|------------------------|---|------------|------------|------------|------------|------------|-------------------|------------------------|------------------|
| Experimental Varieties | 2014 Harvest (yields reported in tons/acre) | PLH Damage | 2014 Total | 2013 Total | 2012 Total | 2-yr Total | % Stand 29-Oct-13 | Seeding Yr Yield (T/A) | PLH Damage Score |
| <i>PLH-RESISTANT</i> | | | | | | | | | |
| 55H94 | TRIAL WINTERKILLED | | | 7.14 | 4.72 | 11.87 | 87 | 0.75 | 2.8 |
| <i>CONVENTIONAL</i> | | | | | | | | | |
| 5312 | | | | 6.23 | 3.86 | 10.08 | 82 | 0.52 | 4.8 |
| ONEIDA VR | | | | 6.28 | 3.63 | 9.91 | 82 | 0.41 | 4.8 |
| VERNAL | | | | 5.89 | 3.80 | 9.69 | 73 | 0.44 | 4.8 |
| Mean | | | | 6.50 | 4.38 | 10.88 | 81 | 0.58 | 3.9 |
| 5% LSD | | | | 0.31 | 0.40 | 0.53 | 3.5 | 0.12 | 0.4 |
| CV (%) | | | | 3.7 | 7.1 | 3.7 | 3.3 | 15.7 | 7.4 |

Overall means are for 9 trial entries.

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2014 New York Alfalfa Trials

Cornell University Agricultural Experiment Station, Tompkins Co., Ithaca

Sown May 2012

Cornell University; School of Integrative Plant Science, Plant Breeding and Genetics Section

| Released And | | 2012 | | | | | | | | |
|------------------------|---|--------|--------|------------|------------|------------|------------|------------------|------------------------|------------------|
| Experimental Varieties | 2014 Harvest (yields reported in tons/acre) | | | PLH Damage | 2014 Total | 2013 Total | 2-yr Total | % Stand 6-Nov-14 | Seeding Yr Yield (T/A) | PLH Damage Score |
| | 12-Jun | 24-Jul | 10-Sep | | | | | | | |
| <i>PLH-RESISTANT</i> | | | | | | | | | | |
| 55H94 | 2.18 | 1.99 | 1.38 | 1.6 | 5.54 | 6.87 | 12.42 | 84 | 0.41 | 1.7 |
| 505005* | 1.94 | 1.82 | 1.21 | 1.2 | 4.96 | 6.41 | 11.37 | 85 | 0.37 | 1.7 |
| <i>CONVENTIONAL</i> | | | | | | | | | | |
| 5312 | 1.97 | 1.65 | 1.13 | 3.0 | 4.75 | 6.16 | 10.91 | 82 | 0.07 | 4.9 |
| Oneida VR | 1.61 | 1.52 | 1.08 | 3.1 | 4.21 | 6.01 | 10.22 | 80 | 0.14 | 5.0 |
| Vernal | 1.49 | 1.39 | 1.14 | 2.6 | 4.02 | 5.66 | 9.68 | 78 | 0.08 | 5.0 |
| Mean | 1.90 | 1.61 | 1.13 | 1.9 | 4.64 | 6.07 | 10.71 | 81 | 0.21 | 3.4 |
| 5% LSD | 0.28 | 0.22 | 0.14 | 0.6 | 0.58 | 0.40 | 0.9 | 6 | 0.12 | 0.5 |
| CV (%) | 11.6 | 10.8 | 9.6 | 24.4 | 9.7 | 5.1 | 6.6 | 5.6 | 45.6 | 12.2 |

*EXPERIMENTAL ENTRIES

Overall means are for 11 trial entries.

Trial will be harvested in 2015.

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2014 New York Alfalfa Trials

Cornell University Agricultural Experiment Station, Tompkins Co., Ithaca

Sown May 2013

Cornell University; School of Integrative Plant Science, Plant Breeding and Genetics Section

| Released And Experimental Varieties | 2014 Harvest (yields reported in tons/acre) | | | PLH Damage 6-Aug-14 | 2014 Total | % Stand 6-Nov-14 | 2013 | |
|---|---|-------|--------|------------------------|---------------|---------------------|---------------------------|---------------------|
| | 23-Jun | 7-Aug | 17-Sep | | | | Seeding Yr Yield (T/A) | PLH Damage Score |
| <i>PLH-RESISTANT</i> | | | | | | | | |
| 55H94 | 3.22 | 1.94 | 1.20 | 1.0 | 6.36 | 83 | 2.97 | 1.3 |
| FSG 420LH | 2.91 | 1.75 | 1.29 | 1.1 | 5.95 | 81 | 2.60 | 3.5 |
| Lancer | 2.78 | 1.84 | 1.22 | 2.2 | 5.84 | 82 | 2.42 | 1.5 |
| <i>CONVENTIONAL</i> | | | | | | | | |
| 5312 | 2.95 | 1.83 | 0.99 | 3.0 | 5.77 | 77 | 2.49 | 5.0 |
| Oneida VR | 2.79 | 1.77 | 1.05 | 2.8 | 5.61 | 81 | 2.36 | 5.0 |
| Vernal | 2.85 | 1.73 | 1.04 | 3.0 | 5.63 | 73 | 2.56 | 5.0 |
| Mean | 2.80 | 1.69 | 1.02 | 1.6 | 5.50 | 77 | 2.54 | 3.2 |
| 5% LSD | 0.33 | 0.16 | 0.16 | 0.5 | 0.56 | 5 | 0.58 | 0.7 |
| CV (%) | 9.2 | 7.6 | 12.3 | 22.5 | 8.0 | 5.5 | 10.0 | 17.1 |

Overall means are for 13 trial entries. Trial will be harvested in 2015 and 2016.

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2014 New York Alfalfa Trials

Cornell University Agricultural Experiment Station, Tompkins Co., Ithaca

Sown May 2014

Cornell University; School of Integrative Plant Science, Plant Breeding and Genetics Section

| Released And Experimental Varieties | 2014 | | |
|---|---------------------|----------------------|-------------------------------|
| | % Stand 6-Nov-14 | 9-Sep Yield (T/A) | PLH Damage Score (July 30) |
| <i>PLH-RESISTANT</i> | | | |
| 55H94 | 91 | 1.24 | 1.0 |
| <i>CONVENTIONAL</i> | | | |
| 5312 | 94 | 1.26 | 3.6 |
| Oneida VR | 95 | 1.17 | 4.2 |
| Vernal | 192 | 1.20 | 4.2 |
| Mean | 93 | 1.22 | 2.3 |
| 5% LSD | 3 | 0.09 | 0.7 |
| CV (%) | 2.5 | 5.6 | 23.6 |

Overall means are for 10 trial entries. Trial will be harvested in 2015, 2016 and 2017.

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