

CIRCULAR NO. 21.

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UNIVERSITY OF ILLINOIS  
Agricultural Experiment Station.

E. DAVENPORT, DIRECTOR.

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VARIETY TESTS OF OATS, 1899.

The test of varieties of oats conducted by the Experiment Station of the University of Illinois for 1899 was so arranged that each variety was sown on three kinds of soil, loam, sandy loam, and clay loam, found on different fields of the Experiment Station farm. The following results are the averages of the yields from the three kinds of soil representing very closely the prevailing soils in the corn-growing sections of the state.

The land on which the trials were made was in corn in 1898. The varieties were sown broadcast on one-tenth acre plats, at the rate of three and one-half bushels per acre on the 12th and 13th of April, care being taken that enough space was left between the plats so that the varieties would not mix during seeding. The plats were disked twice with a spading disk and harrowed twice with an ordinary smoothing harrow.

The oats were harvested with a binder at different times from July 6th to July 24th all in the yellow ripe stage. A great difference was found in the time of maturity of the different varieties varying as much as two weeks between the time of ripening of the very early and the late varieties.

Just before harvesting a violent rain and windstorm laid the oats flat on the ground. On the clay loam soil all of the varieties recovered and stood up straight when ready to harvest. On the loam and sandy loam soils some of the varieties regained their upright position while others remained badly lodged, making it almost impossible to harvest them. When harvested the position of the varieties was as follows:

*All standing*—Alaska, Bartley, New Zealand, Lincoln, Powers No. 2, Calgary Gray, Big Four, Iowa Prolific, Illinois.

*About fifty per cent lodged*—Black Tartarian, Red Rust Proof, Silvermine, Russian, White Maine, Michigan Wonder (Riley).

*Badly lodged*—Clydesdale, Iowa Silvermine, Improved White Russian, Powers No. 1, Texas Red, White Rankin, White Bonanza, Washington, and Michigan Wonder (Olds).

The yields were as follows:

| Name of Variety.          | Source of Seed.                          | Bushels per acre. | Tons of straw per acre. | Per cent. of smut. | Weight per bushel in pounds. |
|---------------------------|--|-------------------|-------------------------|--------------------|------------------------------|
| *Clydesdale .....         | Peter Henderson, New York City, N.Y.     | 62.54             | 1.39                    | 0                  | 39                           |
| †Iowa Prolific .....      | G. W. Miner, Gibson City, Illinois ..... | 46.8              | 1.18                    | 14.                | 29                           |
| †Michigan Wonder .....    | James Riley, Thorntown, Indiana.....     | 60.               | 1.63                    | 4.18               | 28                           |
| **Iowa Silvermine.....    | J. H. Beagley, Sibley, Illinois.....     | 48.35             | 1.40                    | 15.04              | 26½                          |
| †Big Four.....            | L. L. Olds, Clinton, Wisconsin.....      | 49.4              | 1.46                    | 24.18              | 25                           |
| **Illinois .....          | J. H. Beagley, Sibley, Illinois .....    | 50.7              | 1.53                    | 12.00              | 26                           |
| †Texas Red Rust .....     | S. B. Hedges, Urbana, Illinois.....      | 51.38             | 1.85                    | 12.94              | 23                           |
| *White Maine .....        | Johnson & Stokes, Philadelphia, Pa....   | 55.6              | 1.45                    | 10.43              | 29½                          |
| **Alaska .....            | J. H. Beagley, Sibley, Illinois .....    | 32.2              | 1.10                    | 15.00              | 32                           |
| †Michigan Wonder .....    | L. L. Olds, Clinton Wisconsin .....      | 41.5              | 1.19                    | 12.59              | 30                           |
| **Black Tartarian.....    | Peter Henderson, New York City, N.Y.     | 46.4              | 1.40                    | 25.00              | 32½                          |
| †Red Rust Proof .....     | J. C. Suffern, Voorhies, Illinois .....  | 48.1              | 1.28                    | 1.38               | 25                           |
| **Calgary Gray .....      | J. H. Beagley, Sibley, Illinois .....    | 53.9              | 1.35                    | 20.6               | 26                           |
| **Bartley.....            | Samuel Bartley, Edgewood, Illinois....   | 39.6              | 1.62                    | 14.3               | 21                           |
| *Russian .....            | U. S. Dept. of Agrl., Washington, D. C.  | 47.9              | 1.36                    | 0                  | 35                           |
| †Washington .....         | Iowa Seed Co., Des Moines, Iowa.....     | 37.9              | 1.17                    | 7.14               | 26                           |
| †New Zealand.....         | Farmer Seed Co., Faribault, Minnesota.   | 49.6              | 1.19                    | 10.00              | 33                           |
| †Silvermine .....         | Farmer Seed Co., Faribault, Minnesota.   | 43.4              | .99                     | 12.6               | 27                           |
| †Improved White Russian.. | Iowa Seed Co., Des Moines, Iowa.....     | 46.0              | 1.38                    | 20.3               | 24                           |
| †Lincoln .....            | Iowa Seed Co., Des Moines, Iowa.....     | 47.4              | 1.12                    | 17.6               | 31                           |
| †Powers No. 1.....        | J. H. Powers, Prophetstown, Illinois ..  | 46.               | 1.38                    | 20.3               | 25                           |
| †Powers No. 2.....        | J. H. Powers, Prophetstown, Illinois ..  | 37.2              | 1.81                    | 5.8                | 25                           |
| †White Rankin.....        | Fred Rankin, Athens, Illinois.....       | 36.5              | 1.30                    | 12.                | 24                           |
| †White Bonanza .....      | W. G. Baker, Champaign, Illinois.....    | 40.9              | .95                     | 4.38               | 36                           |

\* Late maturing. † Medium maturing. † Very early maturing. \*\* Early maturing.

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