

Wocus 71

A NEW HIGH YIELDING BARLEY VARIETY

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WOCUS 71 BARLEY was selected from the variety Wocus which is grown commercially in the Tulelake area. Foundation seed has been made available to the Tulelake Seed Improvement Committee for increase in 1973.

Wocus 71, (*Hordeum vulgare* L., emend Lam.), C. I. 8059, a spring 6-rowed feed barley, is a selection from the variety Wocus. Wocus was obtained from a cross made by the late R. W. Woodward at Logan, Utah in 1949. Tests at the Klamath Experiment Station, Klamath Falls, Oregon showed that Wocus was well adapted to the organic soils in the area. Wocus was named and released by the Oregon Agricultural Experiment Station in 1958.

Although the data are limited and confined to the Tulelake Basin, it has shown superior performance in all tests at Tulelake, with a yield superiority of 10% or more over Wocus (see tables).

The yield advantage of Wocus 71 was statistically significant. Wocus 71 is similar to Wocus in characteristics other than in yield, height, straw strength and heading. It is stiffer-strawed, 4 to 6 days earlier in maturing and 3 to 5 inches shorter than Wocus.

Like Wocus, its primary region of adaptation is the fertile irrigated areas of Klamath, Jackson and Josephine counties of Oregon and the inter-mountain areas of Northern California. It is also suited to be grown in crop rotation following potatoes and onions. Highest yields were obtained when planted following potatoes and onions or where 80-100 pounds of nitrogen was applied to the soil under irrigation.

Wocus 71 is similar to Wocus in susceptibility to shattering when mature and dry. It should be harvested when the grain moisture is between 12.5 and 13.5%. At this stage Wocus 71 will still have slightly green straw and shattering loss is reduced.

TABLE 1. SUMMARY OF YIELD COMPARISONS OF FIVE SPRING BARLEY VARIETIES, TULELAKE FIELD STATION, 1967-1968

| Variety | Pounds per Acre* | | | | | | 2 Year All Tests Mean |
|---------------|------------------|------|------------|------|------|---|-----------------------|
| | 1967 Tests | | 1968 Tests | | | | |
| | 1 | 2 | 1 | 2 | 3 | | |
| Firlbecks III | 4892 | — | 5675 | — | 4894 | — | 5154 |
| Unitan | 6178 | 5533 | 6505 | 5314 | 4831 | — | 5672 |
| Wocus 71 | 6910 | 6849 | 6736 | 7038 | 6869 | — | 6880 |
| Larker | 4741 | — | 5325 | — | — | — | 5033 |
| Wocus | — | 4240 | 6021 | 6123 | 5195 | — | 5395 |
| L.S.D. .05 | 1018 | 858 | 706 | 1275 | 1667 | — | — |
| C.V. % | 4.0 | 9.0 | 9.0 | 15.0 | 15.0 | — | — |
| Planting Date | 5-2 | 5-1 | 4-24 | 4-17 | 4-17 | — | — |

* Rod row plots

TABLE 2. YIELD PERFORMANCE OF WOCUS 71 AND WOCUS, TULELAKE FIELD STATION 1968-1971

| Variety | Pounds per Acre* | | | | | | | | 4 Year All Tests Mean |
|---------------|------------------|------------|------|------------|------|------------|------|---|-----------------------|
| | 1968 Test: | 1969 Tests | | 1970 Tests | | 1971 Tests | | | |
| | 1 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| Wocus 71 | 6024 | 4182 | 5184 | 4378 | 5053 | 5026 | 5154 | — | 5000 |
| Wocus | 5725 | 3746 | 4389 | 3671 | 4498 | 3684 | 3312 | — | 4146 |
| L.S.D. .05 | 468 | 250 | 397 | 463 | 513 | 1264 | 1176 | — | — |
| C.V. % | 8.0 | 6.0 | 8.0 | 11.0 | 11.0 | 17.0 | 18.0 | — | — |
| Planting Date | 5-9 | 5-10 | 5-10 | 5-8 | 5-8 | 4-23 | 4-30 | — | — |

* Combine harvested plots

TABLE 3. YIELD PERFORMANCE OF FIVE SPRING BARLEY VARIETIES TULELAKE FARMER FIELDS, 1970-1972

| Variety | Pounds per Acre* | | | | | 3 Year All Tests Mean |
|---------------|------------------|------|------------|------|-----------|-----------------------|
| | 1970 Tests | | 1971 Tests | | 1972 Test | |
| | 1 | 2 | 1 | 2 | 1 | |
| Primus II | 3980 | 2825 | 4092 | 3949 | — | 3711 |
| Wocus | 3314 | 3496 | 3733 | 3108 | 5170 | 3764 |
| Wocus 71 | 3689 | 3831 | 4712 | 3696 | 5800 | 4346 |
| Steveland | 3369 | 3328 | 3720 | 4032 | — | 3612 |
| Larker | 3087 | 2808 | 3798 | 3696 | — | 3347 |
| L.S.D. .05 | 20 | 108 | 91 | 52 | 691 | — |
| C.V. % | 4.0 | 2.0 | 7.0 | 5.0 | 10.0 | — |
| Planting Date | 4-24 | 4-30 | 4-29 | 4-24 | 4-24 | — |

* Combine harvested plots

Tests conducted on various locations

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