Lodging has always been a problem when growing wheat in the irrigated areas of Arizona. Yields from Ramona 50, the recommended milling wheat, have been too low for satisfactory financial returns. In 1954, a wheat improvement program was initiated to develop a higher yielding milling wheat, with more resistance to lodging.

**Maricopa—New Bread Wheat for Arizona**

By A. D. Day, R. K. Thompson, F. M. Carasso, and R. E. Dennis

Maricopa wheat (*Triticum aestivum* L. em Thell.), C.I. 14129, was released in 1966 by the Arizona Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture.

Maricopa is a semihard-to-hard, white, spring wheat with the following parentage: Ramona 50 3x Ramona 44 2x Norin 10 x Brevor-14. The first cross (Norin 10 x Brevor) was made at Pullman, Wash. in 1949. Norin 10 is a semidwarf wheat from Japan and Brevor is a white winter wheat from the Pacific Northwest.

Selection 14 was obtained from O. A. Vogel, Pullman, Wash. in 1954. The female parent in the second cross was Ramona 44, a white, spring wheat adapted to the Southwest.

In the third cross, the female parent was Ramona 50, the variety most commonly grown in Arizona and preferred by flour mills.

Selection for the variety was made at Mesa, Ariz. in 1960. The original plant was identified as Arizona 5525-4. The second and third crosses, selections and evaluations were all made in Arizona by A. D. Day, R. K. Thompson, and F. M. Carasso.

**Its Special Features**

Maricopa is adapted to the irrigated areas of Arizona and to other areas of the Southwest where Ramona 50 is grown.

Maricopa wheat is high yielding with good bushel weight. It produced an average of 35 percent more grain than Ramona 50 in eight replicated yield tests at Mesa and Yuma from 1963 through 1966 (Table 1). Average bushel weight was the same as the bushel weight of Ramona 50 (Table 1).

**Milling and Baking**

Maricopa has essentially the same milling qualities as Ramona 50 (Table 2). Ramona 50 has been preferred by flour mills in Arizona for a number of years. The general baking qualities of flour from Maricopa wheat are.

(Continued on Next Page)
similar to the baking qualities of Arizona Rose flour, a commercial flour produced and marketed in the Southwest (Table 3).

Maricopa is about four inches shorter than Ramona 50 and thus is more resistant to lodging when grown in irrigated areas. The long stiff awns on Maricopa, compared to the awnless variety, Ramona 50, make Maricopa more resistant to bird damage at maturity.

Maricopa produces more heads per plant than Ramona 50. Increased tillering means that less planting seed per acre is required.

**Cultural Practices**

Although Maricopa is from 5 to 10 days later in maturity than Ramona 50, the recommended cultural practices are similar for the two varieties (See Dennis, R. E., and A. D. Day. 1964. Growing Wheat in Arizona. Arizona Agricultural Bulletin A-32).

Breeder seed will be maintained by the Arizona Agricultural Experiment Station. Foundation seed may be obtained through the Arizona Crop Improvement Association, Department of Agronomy, University of Arizona, Tucson, Arizona 85721.

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**Table 2. Average Flour Yield, Flour Ash, and Mill Score for Maricopa and Ramona 50 Wheat Grown at Mesa, in 1964 and 1965. Milling Quality Tests were Conducted by the Western Wheat Quality Laboratory, Pullman, Wash.**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Flour yield (%)</th>
<th>Flour ash (%)</th>
<th>Mill score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maricopa</td>
<td>72.7</td>
<td>0.42</td>
<td>83.5</td>
</tr>
<tr>
<td>Ramona 50</td>
<td>72.0</td>
<td>0.42</td>
<td>81.9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Flour source</th>
<th>Protein (%)</th>
<th>Absorption (%)</th>
<th>Loaf volume (c.c.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maricopa</td>
<td>10.35</td>
<td>59.5</td>
<td>1025</td>
</tr>
<tr>
<td>Ariz. Rose</td>
<td>11.25</td>
<td>59.0</td>
<td>1050</td>
</tr>
</tbody>
</table>

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**INDIVIDUAL PLANTS show that Maricopa (right) has more heads than Ramona 50 (left).**

**NOTE THE LONG stiff awns on the head of Maricopa wheat (right) as compared to the awnless head of Ramona 50 wheat (left). This explains why Maricopa is less susceptible to bird damage at maturity.**

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**Coming Events**

**MAY**

4 — Cattle Feeders Day—Morning, Casa Grande Highway Farm; Luncheon and Afternoon, Campbell Ave. Farm, Tucson.


12 — Field Day—Mesa Experimental Station, Mesa.

14-18 — Extension Training Workshops, U. of A Campus.

17 — Gila County Cattle Growers’ Auction, Globe.

24 — Gila County Cattle Growers’ Auction, Globe.

**JUNE**

5 — Arizona Homemakers Council, Student Union Bldg., U of A.

4-10 — Arizona Youth Conservation Camp (first session) at Point-of-Pines.

5- 9 — Town & Country Life Conference, U of A Campus.

11-17 — Arizona Youth Conservation Camp (second session) at Point-of-Pines.

12-16 — State 4-H Junior Leader Laboratory — Shadow Valley Ranch, Prescott.

**JULY**

24-28 — State 4-H Roundup—U of A Campus.