t poplar
iety was
ion acres
92 crop.
1 leading
e acreage
the 1992
Scout 66
percent a
8 percent
9 percent
ming for
bed with
t p. and Eagle
with 2.8
percent,
ly.
8 percent
the 1993
the 1992

may unseat champs

quality, and leaf rust resistance.
t test weight is lower than most
varieties, particularly under late
season heat or drought stress.

Hence, Jules is only recom-
ended for longer cooler grow-
ing areas like northeastern Col-
rado or higher elevation areas.
Jules was developed by the De-
partment of Agronomy at CSU
with funds from the Colorado
Agricultural Experiment Station,
SWAC, Colorado Seed Growers
and private industry.

John Shanahan,
CSU Cooperative
Extension agron-
mist specialist,
aid the new win-
ter wheat variety
was named Jules
recognize one of
the major dryland
wheat-producing
areas in the state
and to indicate its
particular adapta-
tion to this area.

"We also want
to emphasize the
important leaf rust
resistance and
winter hardness of this variety for
this area of the state."

Jules is a high-quality bread
wheat, superior to TAM 107 and
TAM 200 in bread-making traits.
Jules has been equal to Yuma and
slightly inferior to Lamar, the cur-
rent quality standard, in all mea-
sures of end-use quality.

Foundation seed was dis-
tributed to selected seed growers
in August 1992 to produce regis-
tered seed for commercial wheat
producer for 1993 planting.

Aphid resistant wheat strains
beginning to show promise

Russian wheat aphid resistant
strains of hard red winter wheat
have been developed and are be-
ing tested for agronomic and qual-
ity traits in the state-wide wheat
breeding and testing program.

The Russian wheat aphid
(RWA) was discovered in Baca
County in 1986. By July 1987, the
aphid was in every small-grain
producing county in Colorado.
Aphids have cost Colorado wheat
producers more than $100 million
in lost production and control
costs, said Frank Pearls, Colorado
State University (CSU) Cooperative
Extension entomologist.

"We're moving very fast in our
wheat breeding program," said
James Quick, a CSU agronomist
and wheat breeder. "In 1987 we
found a wheat variety grown on
the steppes of Russia with sig-
nificant resistance to the aphid and
confirmed this resistance in 1989.
Unfortunately, this wheat, T-57,
has essentially none of the other
qualities our wheat producers
need."

T-57's aphid resistance is the
variety's only redeeming charac-
teristic by going through a period
of 35 degrees or less for at least
two months to move from the vege-
tative to the flowering stage. Nor-
mally vernalization occurs when
wheat is planted outside in the fall
and goes through the winter, Quick
explained.

The growth chamber speeds up
the vernalization process. It en-
abled CSU wheat breeders to get
two crops per year during the ini-
tial stages of the breeding pro-
gram. Consequently, it took only
two years to produce the first four
generations rather than four years.

"After the first four generations,
we selected 800 lines for RWA
resistance, red grain, hard ker-
nels, short height and early matu-
ry. Seed from these lines was in-
creased in the summer greenhouse
in 1990 and planted outside in
winter hardness.

IRRIGATED VARIETY TRIALS

<table>
<thead>
<tr>
<th>Locations:</th>
<th>4</th>
<th>3</th>
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<tbody>
<tr>
<td>Jules</td>
<td>79.8</td>
<td>80.6</td>
<td>80.2</td>
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<td>Yuma</td>
<td>78.3</td>
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<tr>
<td>TAM 107</td>
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<td>TAM 200</td>
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