

PATWIN (Hard White Spring wheat)

Origin and description of the variety



Figure 1. Wax in Patwin

Patwin (experimental line UC1419) is a Hard White Spring derived from the cross **Madsen/2*Express**.

Patwin is a short stature wheat variety with similar height as Blanca Grande (~35 inches in Davis) and early heading time ~10 days later than Blanca Grande.

Wax is abundant on the surfaces of leaves, glumes, stems and peduncles in mature Patwin plants (Figure 1).

Yield potential

Patwin showed the highest yields in the San Joaquin Valley (9 locations) and the 4th highest yield in the Sacramento Valley (8 locations, Figure 2) Small Grains Regional Trials (averages 2008-2010). It was also the 3rd highest yielding released variety in the Imperial Valley. Because of its high yield potential in all three valleys, Patwin is recommended for all three regions.

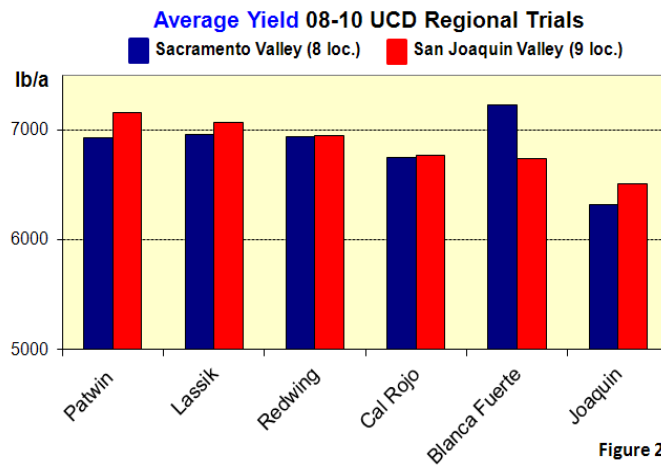


Figure 2

Disease resistance



Blanca Grande

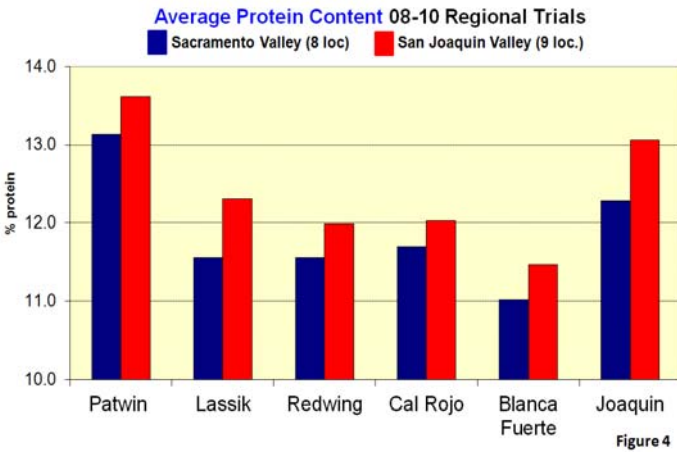
Clear White

Patwin

Figure 3: Comparison between Patwin (resistant) and Blanca Grande & Clear White (susceptible) for leaf damage produced by stripe rust and Septoria Tritici Blotch, Davis May 2006

Patwin is resistant to current field races of stripe rust present in California. Patwin also has the lowest levels of flag leaf infection with septoria tritici blotch among the hard white wheats (see comparison with Blanca Grande and Clear White in Figure 3). Patwin is resistant to root-knot nematodes in small plot trials but its effect on field rotations is still not clear.

Breadmaking quality



Patwin has very high levels of grain protein content (13.5 ± 0.3 % protein) higher than those observed in Lassik, Redwing, Cal Rojo, Blanca Fuerte or Joaquin (Fig.4). Protein levels are similar to those observed in the new high grain protein variety Blanca Grande 515.

Patwin has a hard grain texture (similar to the old variety Express), high water absorption, and strong gluten that result in optimum breadmaking quality.

Patwin shows high falling numbers, even when cool springs induce low falling numbers in other varieties, such as Expresso, Summit 515, Blanca Grande 515 and others.

Area of adaptation

Patwin performs well agronomically in all areas where it has been evaluated in California and has good quality characteristics for bread making. Patwin appears to be well suited for the San Joaquin, Sacramento, and Imperial Valley where it shows high yield potential under irrigation. Patwin combines a high yield potential with excellent bread making quality and resistance to the major pathogens found in California. Its primary use is for bread production.

Seed classes and production

Seed classes of Patwin are Breeder, Foundation, Registered and Certified. The University of California Foundation Seed Project, Davis maintains breeder and Foundation seed classes. Seed production of Foundation, Registered and Certified classes is limited to California. Foundation seed is available for production of Registered and Certified seed.

Allocation and licensing

Foundation seed of Patwin is distributed by the University of California Foundation Seed Program to licensed brokers and seed houses **twice annually**, fall and spring. Off-cycle requests are considered on a case-by-case basis.

To obtain information and/or a license for Patwin contact the University of California, UC Davis InnovationAccess:

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