Irrigation Timing Affects Test Weight of Low Input Barley in Arizona. (A04-ottman141406-Poster)

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Abstract:

Solum is a low input barley grown in Arizona that tends to have low test weight. Experiments were conducted to determine the effect of the number of irrigations and their timing on test weight and grain yield of Solum barley. A single irrigation resulted in low yield (2374 lbs/acre) and unacceptable test weight (45.2 lbs/acre) in one out of two years. Applying a second irrigation at the 1 node or boot stages resulted in yield of 3504 and 3248 lbs/acre, respectively, but the test weight was unacceptable (44.4 lbs/acre) at the 1 node stage in one out of two years. Applying a second irrigation at boot and a third irrigation between flowering and soft dough resulted in an average yield of 3575 lbs/acre and an average test weight of 49.7 lbs/bu. Low test weight was correlated with low kernel weight and irrigation timing affected kernel number and the ability of the plant to fill the kernels.

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