



## Alfalfa 'Sholty' - Hardiness, Drought Tolerance, Conservation

USDA-NRCS, South Dakota State University, and Michigan State University

**Yellow flowered alfalfa demonstrates multiple traits which make it valuable for semi-arid regions of the Great Plains, primarily increased drought-tolerance and winter hardiness. Additionally, yellow flowered alfalfa can help conserve nesting habitats for upland birds when potato leafhopper resistance enables forage stockpiling and a later harvest date. The development of yellow flowered alfalfa variety 'Sholty' provides farmers and ranchers with a robust and persistent alfalfa variety beneficial for depleted pastures and wildlife conservation.**



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Flowering yellow flowered alfalfa.

### PROJECT GOALS

- ✓ Develop a yellow flowered alfalfa variety suited to forage stockpiling in the U.S. Great Plains

### Problems Addressed

The climate of the northern Great Plains can restrict the productivity of conventional hay mixtures and alfalfa varieties. In addition, the susceptibility of many forage varieties to potato leafhopper makes the degradation of forage quality and quantity a concern in delayed harvest systems. Since these factors prevent forage stockpiling for a later harvest, harvest tends to coincide with upland bird nesting in fields, which results in the destruction of nests and incubating hens.

### Solutions Developed

A yellow flowered alfalfa variety 'Sholty' was developed as a 41-genotype synthetic cultivar. Trials indicate that 'Sholty' produces more dry matter than conventional hay and pasture varieties, and that it has high tolerance to potato leafhopper. This tolerance makes forage stockpiling possible without a reduction in forage quality and quantity. As a result, a delayed harvest can be pursued allowing for upland bird nesting to finish prior to harvest.



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