Section VIII.
Mites & sap-sucking insects

# EVALUATION OF AZUKI BEAN ACCESSIONS FOR RESISTANCE TO THE TWOSPOTTED SPIDER MITE

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The twospotted spider mite (TSSM), *Tetranychus urticae*, is a serious pest attacking a significant number of economically important plants. TSSM is the most severe pest of azuki in the Columbia Basin of Washington State, and is especially destructive during the dry, hot summer months when azuki is growing. Consequently, management of TSSM is necessary. Host plant resistance is potentially a viable option to reduce the mite impact in this crop.

Under lab conditions ninety-one azuki accessions were evaluated with a leaf-disk technique to select for those which express an antibiotic response to TSSM's ovipositional rate. Later, nine of the most promising accessions and Erimo, a commercial variety acting as a control, were reevaluated to determine the ovipositional rate and the total fecundity.

Analyses of variance were conducted on ovipositional rate and fecundity of the TSSM. Statistical significances between accessions were found. According to the results, some of the accessions showed a reduced ovipositional rate and fecundity when compared with the susceptible control. The accessions, excepting number 577 possibly, do not show clear morphological evidence that leaf surface morphology is affecting ovipositional rate and fecundity of TSSM. Therefore it can be inferred that a biochemical antibiotic mechanism is at work. Further studies are necessary to clarify this problem.