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Miticides – solutions for a fluctuating problem?

Two-spotted spider mites (TSSM) are ubiquitous in Idaho crops and historically have rarely caused significant damage to sugar beets. In recent years, the TSSM infestations of sugar beet fields **have at times** reached levels causing economic losses. Changes in cropping practices, crop rotation, TSSM resistance to registered chemistries and changes in climactic conditions (prolonged periods of elevated temperatures and reduced relative humidity) forced TSSM from surrounding crops into sugar beets. Insecticides such as Lorsban or Mustang used to control leafminers or black bean aphids lead to an increase in TSSM shortly after application. This observation was related to the broad activity of these products which not only controlled TSSM but also beneficial insects. In recent years EPA and ISDA approved a Section 18 for the use of Onager, a miticide controlling eggs and immature stages as well as viable adult mites. Onager is a highly effective products, but growers are limited to only one application per growing season. However, TSSM are a fluctuating problem and their population increase strongly depends on environmental conditions (temperature and relative humidity) and the developmental stage of surrounding crops. This provides a challenge for Idaho growers to correctly time their miticide applications. This poster will discuss the challenges of miticide applications and potential alternatives and companion products to Onager.