

NEVADA COOL SEASON GRASS IPM STUDIES -- 2004-2006

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PROJECT OVERVIEW

Cool Season Grasses exported as hay products are an important industry for Nevada. University data reveal that these crops represent \$6,300,000.00 in farm gate values to Eureka County alone. In 2002 and into 2003 Banks Grass Mites were identified as a pest responsible for a 30% loss in this crop in Eureka County. A comprehensive review of available chemicals provided that organophosphates were currently the only products labeled for use. In addition many of the products that were labeled for use were undergoing review at the national level and were at risk of being taken off the market. In addition to Banks Grass Mites, entomologist also developed supporting data that Brown Wheat Mite, and Thrips (Western Flower and Grass) were having a large quality and quantity impact on these hay products.

Growers of these crops recognized that the long term sustainability of this industry was at risk. They organized the Nevada Hay and Forage Organization to provide a political platform to assist in solving the problems related to labeling of chemicals, sustainability of the industry and support for research and education.

University of Nevada Cooperative Extension (UNCE) was contacted by the Nevada Hay and Forage Association and asked to assist in establishing research and educational opportunities to address this issue. As such UNCE in conjunction with University of California Davis developed a research project that addressed the insect issues in cool season grass hays.

The joint effort resulted in a three year research project that focused on new chemicals available for control and also addressed management changes.

Activities:

A multi-state research effort was initiated in 2004. The project includes pesticide screenings and efforts related to developing Integrated Pest Management (IPM) strategies to control mites and thrips.

The pesticide screenings entail a three year research field trial evaluating the efficacy of 14 potential products on cool season grass hays which were replicated 3 times at 5 sites over 3 years.

The chemicals included in the trial were: Acramite, Fujimite, Zeal, Oberon, Mesa, Pyramite, and Kanemite all of which are primarily miticides. These products may have some activity on

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insects (such as thrips) but their strength is mite control. The insecticides tested include :Success, Baythroid, and Mustang Max which are active on thrips and will likely provide little to no mite control. In fact, Mustang Max and Baythroid are pyrethroid insecticides and as such may increase (flare) populations of mites. Supracide was included as the grower standard treatment. Silwet (0.1%) was added to all treatments.

A third activity aimed at meeting the growers needs was the establishment of an active Interregional Research Project (IR-4) Coordinator for Nevada and increasing Nevada's participation in this important program.

RESULTS

Grant related activities focused on this issue, have resulted in a total of \$571,900 in funds targeted at solving this critical problem.

Several early successes have been achieved since this project was initiated in 2004. Notable accomplishments include:, Acramite granted a national "A" priority status with tolerance screening being completed, Zeal granted "B" priority status at national level, Oberon granted "A" priority status with tolerance screenings beginning in 2007. Acramite liquid and Baythroid have received labels allowing use in Nevada while Capture and Intrepid are also undergoing tolerance screenings to allow use on cool season grass hays.

The IPM grant funding has been received and pest sampling techniques have been tested in Nevada and California.

For a complete copy of this project and results contact one of the participants listed below.

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