





## **Cropland**

Grasshoppers and Mormon Crickets can be devastating to Utah's most profitable crops -- alfalfa, corn, oats, wheat, rye and barley. Farmers should first determine if there is an infestation of eight or more grasshoppers per square yard. If there is, the most effective control methods are baiting for Mormon Crickets and ground spraying or aerial spraying for grasshoppers and Mormon Crickets when they occur in large numbers. Ground spraying is usually more expensive per acre, but there is less chance of killing non-target insects such as bees or other beneficial insects. Aerial spraying is quick, usually less expensive, and has a high kill rate. Usually, aerial spray applications are used when there are more acres to be sprayed. Justification for chemical control depends on the type of crop, stage of growth, additional migration and the type of damage being done to the crop. The insects, of course, do not respect farm boundaries. They hatch and migrate off bordering lands, and at times this is extremely frustrating to a grower trying to control an infestation. This is where communities pulling together to do a county-wide spray program comes into play. Also, the importance of government spraying of public lands bordering cropland cannot be stressed enough.

## **Lawns, Gardens, and Landscaping**

Many Utah valleys are experiencing rapid population growth. Homes are being built on land where grasshoppers and Mormon Crickets have been hatching and laying eggs for decades. The insects also migrate out of vacant fields and low hills into lawns and gardens. This results in thousands of dollars in damage to newly planted landscapes. Communities need to work together to control grasshopper and Mormon Cricket outbreaks. If one person is spraying and neighbors are not, the insects will just continue migrating from adjacent property. Vacant lots and fields need to be tilled in late fall to expose the eggs which are destroyed when exposed to the cold. Lawns also can be raked to expose the eggs. Flower gardens should be turned over to expose the eggs during the winter. If there is an outbreak of the insects on your landscape during the summer, start spraying early. Once you see that grasshoppers and/or Mormon Crickets have invaded, even small ones, start spraying with Malathion or liquid Sevin (carbaryl) on turf, ornamentals and vegetables. Read and follow application instructions carefully. Over application can be dangerous to you and your neighbors.

## **ASSESSING THE IMPACT**

The Extension team of Mark Nelson, Matt Palmer, Michael Pace, Jeff Banks and Jay Karren received a grant to study the Economic Impact of Mormon Crickets on Agronomic Crops and Rangeland in Western Utah. The goals are:

1. To determine the economic impact that Mormon Crickets have on alfalfa, small grains and rangeland vegetation in Beaver, Millard, Juab and Tooele Counties.
2. To develop a fact sheet outlining the economic damage caused by Mormon Crickets on the study crops.
3. To educate farmers, Extension agents and other interested agencies on the importance of looking at anticipated damage and costs when deciding what control measures to take or recommend.

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