

Chemical control of Blister Beetles

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Recommendations for Control of Blister Beetles

Alfalfa fields should be scouted regularly for blister beetles from early spring to the end of the growing season. Correct identification is essential because blister beetles can be confused with tiger beetles, darkling beetles (figure 8.K) and similar insects found in alfalfa (figure 8.L). For help with identification, collect a sample of the insects and take them to the county Extension agent.

The importance of scouting alfalfa fields cannot be overemphasized. Through sampling, heavily-infested fields can be detected and treated before cutting. However, as an additional precaution, fields should be surveyed after chemical treatment, just before cutting, to assure beetle-free hay. Also, an alert operator during cutting can avoid cutting in areas where beetles are high in number, especially if swarms are present. Observations indicate that live beetles or beetles killed by insecticides do not remain in the cut hay, instead they fall to the ground where they cannot be picked up by the baler. Most beetles in baled hay probably were killed as they went through the harvester. Differences in beetle kill rates may be found among types of harvesters and may be related to the type and setting of the crimper. Hay raked before baling, as is commonly done for large bales, may allow more dead beetles to fall to the ground. This can reduce the number of beetles in the finished product. Cultural Control Recommendations for Alfalfa Producers

1. Cut alfalfa at 10% or less bloom. This lessens the chances for field invasion by blister beetles because they are attracted to flowering plants.
2. Control primary weeds in and around alfalfa fields. This reduces the likelihood of blister beetles establishing themselves along field margins, then migrating into alfalfa fields.
3. Control grasshoppers by chemical or cultural methods, and control grassy weeds preferred by grasshoppers. This can reduce the numbers of both grasshoppers and blister beetles in and around alfalfa fields.
4. Sample fields just prior to cutting, and avoid cutting any areas infested with large numbers or swarms of beetles. Beetles are generally more numerous on the side of fields nearest to rangeland. Blister beetle infested hay that has been baled should be destroyed by burning or burial. Do not sell or feed blister beetle infested hay to any livestock.

The New Mexico alfalfa hay market is at risk when blister beetle poisonings occur. Chemical Control Recommendations for Alfalfa Producers Limited insecticides screening has been done

for blister beetles in New Mexico. If these pests are found before cutting, one of the following treatments may be used:

1. Sevin XLR, 1/2 to 1 quart/acre. 2. Sevin 80S, 2/3 to 1-1/4 pounds/acre.

CAUTION: This material should not be applied when foliage is wet, rain is imminent, or humidity is high. 3. Sevin 50W, 1 to 2 pounds/acre.

4. Sevin 4F, 1/2 to 1 quart/acre. Sevin (carbaryl) is highly toxic to honey bees.

Before applying Sevin, warn beekeepers to relocate hives beyond the bee flight range until 1 week after application, or take other equally effective precautions. CAUTION FOR ALL

FORMULATIONS OF SEVIN: The prescribed waiting period for cutting after using Sevin at recommended rates on alfalfa is 7 days. Scout treated fields again for blister beetles at least once before cutting. 5. Parathion 8E, 1/4 to 1/2 pint/acre.

6. Parathion 4E, 1 to 1-1/2 pints/acre. CAUTION: Do not apply this material on forage crops within 15 days of cutting or forage use. Parathion is a restricted-use pesticide. The lower use rate is suggested to help preserve beneficial arthropods. Use the same precautions as with Sevin to conserve honey bees. Several other products are being tested for blister beetle control in alfalfa. Consult the county Extension agent for the latest information on insecticides registered in alfalfa for blister beetle control. It is the users' responsibility to read all pesticide labels carefully and to follow all instructions on application, safety, and other restrictions.

Blister Beetles in Alfalfa, New Mexico State University Cooperative Extension Service, Circular 536, Charles R. Ward, Extension Entomologist

