Agricultural Experiment Station
Cooperative Extension

37860 West Smith-Enke Road
Maricopa, Arizona 85138
(520) 568-2273
FAX: (520) 568-2556

Quinoxyfen Use in the Desert Southwest
Prepared by Al Fournier, Peter Ellsworth & Wayne Dixon
Comments submitted by the Arizona Pest Management Center
University of Arizona

Source of Information Request: USDA Office of Pest Management Policy, Received Jan 23, 2014.
Response Date: Feb 21, 2014

Information Request:
Office of Pest Management Policy requested information on agricultural uses of quinoxyfen, which is undergoing Registration Review.

Process:
The Arizona Pest Management Center (APMC) requested input from Extension specialists, plant pathologists, crop consultants, pest control advisors and Arid Southwest IPM Network contacts in AZ, CA, NM and NV. We also queried the APMC Pesticide Use Database, which contains uses reported to the Arizona Department of Agriculture since 1991. We did not get a timely response from all contacts, but have summarized important stakeholder comments below.

Comments

This active ingredient is a valuable chemistry used for powdery mildew control across several crops in Arizona, New Mexico and southeastern California.

In Arizona, quinoxyfen is mainly used in melons (all types) but also has some lettuce usage. It is very useful and effective against powdery mildew in these crops. University of Arizona Extension plant pathologist Dr. Michael Matheron calls it the "linchpin in control of powdery mildew" and indicates it has maintained efficacy well over the past 10 years. Usage increased significantly in Arizona starting in 2011. According to one Pest Control Advisor (PCA) this increase was due to an expansion of the label that allowed aerial applications. According to the Arizona Pest Management Center (APMC) Pesticide Use Database, about 7,000 acres of melons were treated with quinoxyfen in 2013.

A PCA who manages thousands of acres of melons in Southeastern California's Palo Verde Valley along the Colorado River says it is an important component in powdery mildew management programs. It is used as part of a preventative program, and it is particularly important late in the season because it has a shorter pre-harvest interval than alternative products available to the industry. This is a very important niche for this product. It is also used on lettuce

grown in this region, and there again it is rotated with other fungicides (e.g., Manzate) with the quinoxyfen being used closer to harvest.

Dr. Natalie Goldberg, a plant pathologist with New Mexico State University said quinoxyfen is a valuable chemistry in New Mexico. In efficacy trials on melons several years ago quinoxyfen treatments provided "phenomenal" control of powdery mildew. A consultant for the chili pepper industry in New Mexico indicates that quinoxyfen is an effective fungicide against powdery mildew and that is labeled for foliar use on chili peppers. However, rotation restrictions on the Quintec label limit its usefulness to chili growers. There is a 30-day re-planting interval requirement for many vegetable and tuber crops. Therefore, it can be used and is potentially very helpful to chili growers who rotate into onions, watermelons, squash, or certain other vegetable crops behind chilis. But those rotating into other crops grown for food or feed (e.g., alfalfa), the more common situation throughout New Mexico, cannot use it on chilis because for these crops the label specifies a 12-month replant restriction. Therefore, use of this A.I. as labeled does not fit the most common rotations of chili growers. If not for this re-plant restriction, the product would be very useful, particularly because growers are seeing some loss in efficacy of azoxystrobin.