

Agricultural Chemical Usage, 2010

Vegetables – Snap Beans, Sweet Corn, Pumpkins

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The following chemical use data is the most recent data available.

Fertilizers

Of the three primary macronutrients, nitrogen (N) was applied to 98 percent of the snap bean for processing acreage at an average rate of 44 pounds per acre for the 2010 crop year. Macronutrients phosphate (P) and potash (K) were applied to 95 and 98 percent of the snap bean acreage at an average rate of 33 and 54 pounds per acre, respectively. The secondary macronutrient, sulfur (S), was applied to 24 percent of acres at a rate of 20 pounds per acre. Snap beans for processing were planted on 12,000 acres in Pennsylvania in 2010.

Nitrogen was applied to 98 percent of the fresh market sweet corn acreage at an average rate of 93 pounds per acre for the crop year. Phosphate and potash were applied to 86 and 85 percent of the acreage at an average rate of 59 and 45 pounds per acre, respectively. Sulfur applications were made on 15 percent of the acreage at an average rate of 31 pounds per acre. Sweet corn for fresh market was planted on 16,200 acres in Pennsylvania in 2010.

Pumpkin growers applied nitrogen to 94 percent of the acreage; phosphate 84 percent; potash 85 percent; and sulfur 7 percent.

The average rates per crop year for nitrogen, phosphate, potash, and sulfur were 61, 29, 79, and 31 pounds per acre, respectively.

Pesticides

For growers of snap beans for processing, the more commonly used herbicides were Bentazon, Formesafen, Halosulfuron, and Imazamox. The most used insecticides were Zeta-Cypermethrin and Bifenthrin. Boscalid was the fungicide reported most on the surveyed acres.

Fresh market sweet corn growers applied Atrazine, S-Metolachlor, and Mesotrione as the most used herbicides. The most used insecticides were Lambdacyhalothrin and Methomyl. Azoxystrobin the only fungicide reported for sweet corn at a publishable level.

Pumpkin growers applied the herbicides Clomazone and Ethalfluralin most commonly. Endosulfan, Lambdacyhalothrin, Esfenvalerate, and Bifenthrin were the most used insecticides, and Myclobutanil, Copper Hydroxide, Pyraclostrobin, Boscalid, and Cyazofamid were the five most reported fungicides used on pumpkins.

Pest Management Practices

Pennsylvania vegetable growers reported using several management practices to aid in the deterrence of pests through prevention, avoidance, monitoring, and suppression strategies. The most commonly reported pest management practice for prevention was field edges, ditches, or fencerows were chopped, sprayed, mowed, plowed, or burned, used by 72 percent of the vegetable farms on 69 percent of the acres treated.

For avoidance practices, rotating crops during the past 3 years was used by the majority of vegetable farms, 88 percent, on 81 percent of the acreage. For monitoring practices, scouting for weeds was the most commonly used scouting practice, used on 89 percent of the vegetable farms on 97 percent of the acres treated. Scouting for insects and mites was used on 87 percent of farms, and scouting for diseases was used on 85 percent of farms.

The most frequently used pest suppression practice was to maintain ground covers, mulches, or physical barriers. This practice was used on 66 percent of the vegetable farms. Alternating pesticides with different methods of application was used on 65 percent of the acreage.