

October 1998

INSECT MANAGEMENT IN SWEET POTATOES by Brian Nault & John Speese III

Managing insect pests of sweet potatoes will become more of a challenge now that one of the most effective products, Dyfonate II 15G, is no longer available. Although there are other effective crop protectants available for early season pest control such as Mocap and Lorsban, alternatives that exist for late season control are not as effective as Dyfonate. Research is currently underway to identify crop protectants that will be most useful for managing late season infestations of sweet potato insect pests.

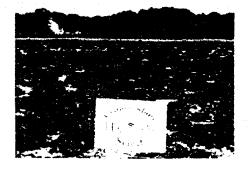
In Virginia, sweet potatoes are attacked by a complex of beetle larvae that include 2 species of wireworms, several species of white grubs, Southern corn rootworm and 2 species of flea beetles. These pests damage sweet potatoes by either penetrating the root or by feeding on its surface, which results in scaring. Regardless of the type or the extent of the feeding injury, the root will be either rendered unmarketable or down graded. Because wireworms and white grubs will be present in the soil during the entire season and other species will infest the crop later in the season, season-long protection of the crop is equired.

To accomplish this, avoid planting sweet potatoes in fields that have been either double cropped with small grain and soybean, no-till corn or left fallow. Wire worms and white grubs are most prevalent in soils that have been disturbed the least. In situations where this type of rotation is not an option, a soil incorporated insecticide should be used prior to or during planting followed by a late season insecticide program. To predict when foliar insecticides should be applied, black light traps are used to monitor click beetle flights (adult of the wireworm). Insecticides should be applied from the time click beetles are detected in black light traps until flight activity stops. Typically, this period begins in mid-July and lasts for 2 to 3 weeks (total of 3 to 4 sprays needed). Sprays targeting click beetle populations will also control the pests mentioned earlier. Currently, Sevin and Thiodan are the only conventionally labeled foliar products that are effective. In a field trial at the Eastern Shore AREC in 1997, an alternative foliar product called Garlic Barrier AG (Garlic Research Labs, Glendale, CA) was shown to be effective in protecting the sweet potato crop. Future research with this labeled product is expected to resume in 1999.

THE LIFE OF A HAYMAN, part II update with tuber and plant progression photos

Week 5





Progressive photographs from the Eastern Shore Select™ Hayman demonstration field illustrates the growth of tubers and plants during August and September 1998

Week 9



"Heads Up" FEATURE: THE VIRGINIA SWEET POTATO BOARD

According to the Virginia Department of Agriculture and Consumer Services (VDACS) website, there are 17 self-help commodity boards created by state law. The aim of each commodity board is to promote research, education and marketing efforts. Growers of these commodities have agreed, by referendum, to use funds generated through assessments for programs and projects that would benefit their commodities. These assessments, or per unit taxes, are also used to fund production trials at the local experiment station. Members of all but one of the boards are appointed by the Governor with the appointments subject to confirmation by the General Assembly Agriculture Committee upon recommendations by industry groups. In the case of the Virginia Sweet Potato Board (VSPB), recommendations are made by the Virginia Sweet Potato Association, Inc.

Bill Mapp, program manager for VSPB, notes that during the 1960's, "when the VSPB was created, Virginia was the third largest sweet potato producer in the Union." Sweet potato production on Virginia's Eastern Shore, where most of Virginia's sweet potatoes have always been grown, has decreased dramatically since then, having been replaced with mostly field crops and other vegetables. Therefore, most Board funding now goes toward "support and research at the experiment station." All growers of sweet potatoes in Virginia, including growers of Hayman sweet potatoes, are subject to a \$.02 excise tax per bushel and are responsible for reporting production to the VSPB. According to Bill Mapp, the "first handler is responsible for deducting the tax." (First handler is defined as "the packer, shipper processor or handler who first performs the function of assembling potatoes for further sale." In the absence of a first handler the sweet potato producer becomes responsible for submitting the excise tax.) For more information on the VSPB, contact Bill Mapp (757-787-5867).

Dr. Rikki Sterrett conducts trials and maintains breeder seed for Haymans at the Eastern Shore AREC. Her work with Haymans aims to optimize yields by changes and adjustments to cultural management of the potatoes. Since the focus is on providing quality seed to growers, careful measures are taken to assure that breeder and foundation seed are handled and stored properly. Dr. Sterrett notes that the Virginia Crop Improvement Association (VCIA) has specific guidelines for growers interested in producing and marketing certified seed from foundation seed. Dr. Sterrett adds a *special note* for any growers interested in getting foundation seed for next year's Hayman crop - please contact Bruce Beahm this Fall at VCIA (804-472-3500) so they can cover the demand for seed.

FOOD FOR THOUGHT: Recipe for Hayman Potato Pecan Pie

5 to 7 Hayman potatoes, roasted, peeled, pureed (enough for 10 cups)

2 ½ cups dark brown sugar
10 eggs beaten
5 ounces of heavy cream
5 ounces butter, melted
½ teaspoon vanilla extract
pinch of cinnamon
pinch of allspice
pinch of nutmeg
pinch of salt
1/4 pound toasted pecan pieces
2 partially baked pie shells



In a large mixing bowl, combine the 10 cups of Hayman puree with sugar, eggs, cream, butter, vanilla, cinnamon, allspice, nutmeg and salt. Mix thoroughly. Divide evenly between the two pie shells, then press the toasted pecans into the top of the puree mixture. Bake in a preheated oven at 325 degrees for 30 to 40 minutes, or until a knife inserted comes out clean.

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