

UGA Weed Control Programs for Sweet Potato in 2023

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Crop rotation, tillage, and a sound herbicide program are all critical components for a successful production system. This circular focuses on implementing sound management programs while minimizing crop injury when transplanting sweet potato. Specific production practices may alter weed and crop response; thus, *growers must implement programs carefully and follow* all herbicide label recommendations and restrictions.



Photo: Tim Coolong

A 3rd party indemnified label for Reflex is hopeful for the 2023 season.

Step 1.

Tillage, Roundup, and Gramoxone are effective tools to ensure fields are weed-free at planting. For troublesome weeds, a sequential application of Roundup followed by paraquat 5-7 days later would be in order. Suggest applying Roundup at no more than 1.13 lb ae/A (RU PMAX3 = 30 oz/A) at least 3, prefer 7, days before planting to eliminate crop safety concerns. Gramoxone should be applied at least 24 hr prior to planting.

Step 2.

Valor SX (2 to 3 oz/A) or **Valor EZ** (2 to 3 fl oz/A) should be applied to the pre-formed bed and followed by a light irrigation prior to transplanting. DO NOT incorporate and minimize movement of soil during transplanting. DO NOT apply after transplanting, do not use transplants harvested more than 2 days prior to planting, do not use greenhouse transplants, and test a small area for new cultivars. The **Reflex 3rd party indemnified label**, when approved, is expected to allow up to 1 pt/A applied to the soil surface prior to transplanting (Fig 2); the benefit would be for yellow nutsedge suppression. Test on a small area initially to make sure your production practice does not cause crop injury.

Step 3.

Command 3 ME (up to 1.5 pt/A) should be applied POST-transplant within 5 days of transplanting for preemergence control of annual grasses and a few broadleaf weeds. Sweet potato roots must be below the soil surface when applied to the soil surface. Great crop tolerance should be observed; however, one must review the label regarding buffers and rotational restrictions with Command.

Step 4.

Dual Magnum can be used postemergence as long as the applicator obtains an indemnified 3rd party label prior to application (Fig 2). Research has shown stunting from Dual Magnum if applied too closely to planting; thus, application 2 to 3 weeks after transplanting is suggested. Rates should range from 8-12 oz/A. Sequential applications can be made, not to exceed 1.33 pt/A and a 40 day PHI.

Step 5.

Select or Select Max type products can be applied to control annual grasses 3", goosegrass 1" or less, up until 30 days of harvest.

Critical Thinking Points!

1. Avoid fields infested with heavy nutsedge populations. Once the new Reflex label is approved, it will help suppress yellow nutsedge but populations must be low for success. For emerged nutsedge prior to planting, apply Roundup followed by paraquat 5 to 7 days later.
2. Devrinol is labeled for sweet potato production fields and is effective on some small seeded broadleaf and grass weeds but it has not improved weed control in research studies when added to the program noted above. Devrinol, of course, is very important for plant beds.
3. Command poses serious carryover risks and has buffers, check labels closely before use.
4. Reflex poses serious carryover risks to some crops, check label closely before use.
5. Be aware of potential carryover from previously used herbicides, especially Cadre (Fig 1).
6. **DO NOT APPLY DUAL MAGNUM BEFORE PLANTING OR AT PLANTING.**
7. Plowing can be very effective but if one does plow, make sure to follow with a residual herbicide.
8. Use conservative herbicide rates on sandy soils with low organic matter and/or with intense irrigation.
9. Successful weed management depends on residual herbicides that are ideally activated by rainfall or irrigation within two days of application.
10. Always follow herbicide label restrictions; read labels for potential injury or carryover concerns.

Figure 1. Sweet Potato Response To Cadre

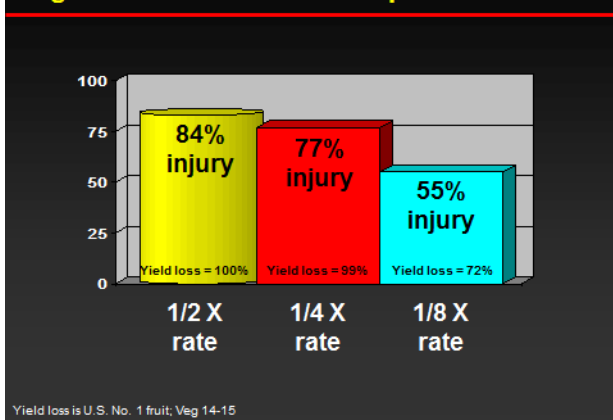


Figure 2: Dual Magnum and Reflex Indemnified Labels

1. <https://www.syngenta-us.com/labels/indemnified-label-search>
2. Login (user name, password)
3. Select state
4. Select product (Dual Magnum or Reflex)
5. Select crop
6. Waiver of liability (must approve to get label)
7. Print label



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