

# 2024 Sweet Potato Weed Control Programs for Georgia Farmers

A. S. Culpepper and J. C. Vance, University of Georgia, Tifton

Crop rotation, tillage, and a sound herbicide program are all critical components for a successful weed control program. This circular focuses on maximizing weed control 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.*



*An indemnified label for Reflex has been approved.*

## Step 1: No weeds emerged at planting.

**Tillage, Roundup, and Gramoxone** are effective tools to ensure fields are weed-free at planting. Preparing for planting with tillage remains the most common approach. If additional help is needed, a sequential application of Roundup followed 5-7 days later by paraquat or tillage would likely be more effective on troublesome weeds. 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 if not followed with tillage. If tillage will occur between the glyphosate application and planting, then the rate of glyphosate can be increased up to 2.26 lb ae/A. Gramoxone should be applied at least 24 hr prior to planting.

## Step 2. Apply residual herbicides before planting.

**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 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 indemnified label** must be obtained before use (Figure 2), it allows up to 1 pt/A applied to the soil surface prior to transplanting following the same restrictions noted with Valor; the benefit of adding Reflex would be for yellow nutsedge suppression. Experiment on a small area initially to ensure crop safety.

## Step 3. Apply residual herbicides right after planting.

**Command 3 ME** (up to 1.5 pt/A) should be applied postemergence 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 at time of application. Great crop tolerance should be observed; however, one must review the label regarding buffers and rotational restrictions with Command.

## Step 4. Apply residual herbicides postemergence.

**Dual Magnum** can be used postemergence as long as the applicator obtains an **indemnified label** prior to application (Figure 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 of 12 oz/A are usually in order with sequential applications being made if needed, not to exceed 1.33 pt/A and a 40 day pre-harvest interval (PHI).

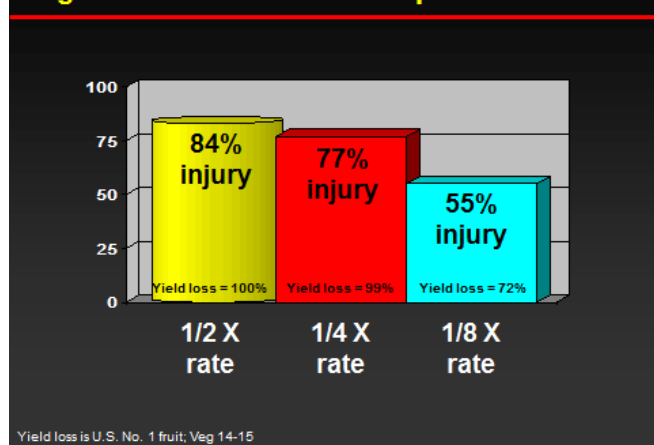
## Step 5. Remove grasses early.

**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. Devrinol controls some small seeded broadleaf and grass weeds and could be included; however, research has not shown a benefit from adding this herbicide to the program provided. Devrinol is critical for plant beds.
2. Command poses serious carryover risks to some crops and has buffers, check label closely before use.
3. Reflex poses serious carryover risks to some crops, check label closely before use.
4. Be aware of potential carryover from previously used herbicides, especially Cadre (Figure 1).
5. DO NOT APPLY DUAL MAG. BEFORE OR AT PLANTING.
6. If plowing make sure to follow with a residual herbicide.
7. Use conservative herbicide rates on sandy soils with low organic matter and/or with intense irrigation.
8. Successful weed control relies on residual herbicides that are activated by rainfall or irrigation ideally within two days.
9. Always follow herbicide label recommendations and restrictions.

Figure 1. Sweet Potato Response To Cadre



## NUTSEDGE IS A MIGHTY CHALLENGE

Avoid fields infested with heavy nutsedge populations if possible. If not possible, allow the nutsedge to emerge and then

- 1) treat with glyphosate at up to 2.26 lb ae/A (RU PMAX3 = 60 oz/A),
- 2) 5 days after the glyphosate application treat with paraquat and/or till,
- 3) as quick as possible form beds and apply Reflex and Valor preplant,
- 4) irrigate as needed,
- 5) transplant asap after irrigation,
- 6) apply Dual Magnum postemergence.



Figure 2: Obtaining Dual Magnum & Reflex Labels

- 1) <https://www.syngenta-us.com/labels/indemnified-label-login>
- 2) Login (username, 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