

# Estimated Effectiveness of Recommended Herbicides on Selected Common Weeds in Florida Vegetables <sup>1</sup>

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Successful weed control is essential for economic vegetable crop production in Florida. Weeds reduce vegetable yields by competing for moisture, nutrients, and light during the growing season. Weeds also harbor insects and disease pests and interfere with harvesting. Weed control in vegetables involves good management practices in all phases of production. The use of herbicides, cultivation, crop rotation, cover cropping, crop competition, and/or mulching may have to be combined to suppress many difficult-to-control weed species.

Identifying weed problems and selecting appropriate weed control methods are essential steps in designing or modifying a weed control program. Knowing the weed species that infest the fields is also important when selecting the correct and most effective herbicide for specific weed problems. Generally, for preplant and preemergence applications, the weed problem must be anticipated since weeds have not emerged at the time of application. This can be done by observing the field in the previous season and recording those weeds that are present and in what areas of the field they occur. These weed maps can be very useful the next season in refreshing your memory and helping you make decisions about which herbicides to purchase. Once you

determine your weed problems, the following tables can be helpful in choosing the herbicide that is most effective for those problems.

Tables 1 and 2, which estimate the effectiveness of control of certain herbicides, were developed from research data, herbicide labels, and the experience of research and Extension workers in Florida. Table 1 lists effectiveness estimates for herbicides on broadleaf weeds. Table 2 lists effectiveness estimates for herbicides on grasses and sedges.

The estimated effectiveness is based on recommended rates for vegetables in Florida and application procedures as specified by the label. Herbicide effectiveness may vary because of soil type, environmental conditions (e.g., rainfall, temperature), method and time of application, and weed size. Consult the herbicide label for specific information relating to crop use and expected response of the herbicide under your soil type.

The herbicide listings and the use of trade names in this publication is solely for the purpose of providing information. It is not a guarantee or warranty of the products named and does not signify that they are approved to the exclusion of others.

1. This document is HS706, one of a series of the Horticultural Sciences Department, UF/IFAS Extension. Original publication date January 1996. Revised August 2003, April 2009, December 2012, and December 2015. Reviewed January 2019. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

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The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee or warranty of the products named, and does not signify that they are approved to the exclusion of others of suitable composition. All chemicals should be used in accordance with directions on the manufacturer's label. Use pesticides safely. Read and follow directions on the manufacturer's label. The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication do not signify our approval to the exclusion of other products of suitable composition.

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Table 1. Estimated effectiveness of herbicides on selected broadleaf weeds in vegetables

| Herbicide                    | Amaranthus | Cocklebur | Evening primrose | Eclipta | Florida beggarweed | Florida pusley | Parthenium | Lambsquarter | Purslane | Morningglory | Nightshade | Ragweed | Sicklepod | Southern sida |
|------------------------------|------------|-----------|------------------|---------|--------------------|----------------|------------|--------------|----------|--------------|------------|---------|-----------|---------------|
| <b>PREPLANT INCORPORATED</b> |            |           |                  |         |                    |                |            |              |          |              |            |         |           |               |
| Command®                     | F-G        | P-F       | G                | -       | -                  | G              | -          | G-E          | E        | P            | -          | F-G     | P         | -             |
| Dacthal®                     | F-G        | P         | F-G              | -       | F                  | F              | -          | G            | G        | P            | F          | -       | P         | F             |
| Devrinol®                    | F-G        | P         | G                | P       | P                  | G-E            | P          | G-E          | G        | P            | P          | -       | P         | -             |
| Dual                         | G          | P         | G-E              | G       | F-G                | G-E            | -          | G-G          | F        | P            | F          | F       | P         | G             |
| Eptam®                       | G          | P         | G                | G       | P                  | G-E            | -          | G            | G        | F            | P-G        | F       | F         | G             |
| Prefar®                      | F          | P         | F                | P       | P                  | E              | -          | F-G          | F        | P            | P          | P       | P         | P             |
| Pursuit®                     | G-E        | -         | E                | E       | E                  | F              | -          | E            | E        | G-E          | G-E        | G       | P         | G             |
| Sencor®                      | E          | G         | E                | G       | G-E                | G              | G          | E            | G        | G-E          | P          | G       | G         | G             |
| Treflan®                     | G-E        | P         | G                | F-G     | P                  | E              | P          | G-E          | E        | P            | P          | P       | P         | P             |
| <b>PREEMERGENCE</b>          |            |           |                  |         |                    |                |            |              |          |              |            |         |           |               |
| Alanap                       | G-E        | F         | G                | G       | F                  | G              | -          | E            | G        | F            | F          | F       | P         | G             |
| Atrazine                     | E          | G-E       | E                | G-E     | G-E                | E              | E          | E            | E        | G            | G          | E       | F-G       | G-E           |
| Callisto®                    | G-E        | F         | -                | -       | -                  | -              | -          | G            | -        | F            | G          | G       | -         | NC            |
| Caparol®                     | G-E        | -         | -                | -       | -                  | F-G            | -          | F-G          | G-E      | -            | F-G        | F-G     | -         | -             |
| Chateau®                     | G-E        | G-E       | G-E              | -       | G                  | G-E            | -          | G-E          | G-E      | G            | G-E        | G-E     | G         | G             |
| Command®                     | F-G        | P         | G                | -       | -                  | G              | -          | G            | E        | P            | -          | F       | P         | -             |
| Curbit®                      | G          | P         | G                | -       | P                  | E              | P          | G-E          | E        | P            | P          | P       | P         | P             |
| Dacthal®                     | F-G        | P         | F-G              | -       | F                  | F              | -          | G            | G        | P            | F          | -       | P         | F             |
| Devrinol®                    | F          | P         | G                | P       | P                  | G              | P          | G            | G        | P            | P          | -       | P         | -             |
| Dual                         | G          | F         | G                | G       | F                  | G              | -          | F            | P        | P            | F          | F       | P         | G             |
| Goal®                        | E          | E         | E                | E       | G                  | G              | G          | E            | E        | G            | G          | G       | F         | G             |
| Kerb®                        | F-G        | -         | G                | -       | -                  | G              | -          | E            | G-E      | F-G          | G          | -       | -         | -             |
| Lorox®                       | G          | F         | E                | -       | G                  | E              | -          | E            | E        | F            | -          | G       | -         | F             |
| Matrix®                      | G-E        | G-E       | E                | E       | E                  | -              | -          | E            | E        | -            | F          | G       | -         | -             |
| Prowl®                       | G-E        | P         | G                | -       | P                  | G              | P          | E            | G        | P            | P          | P       | P         | -             |
| Pursuit®                     | G-E        | G-E       | E                | E       | P                  | F              | -          | G-E          | G-E      | G-E          | G-E        | G       | P         | G             |
| *Sanda®                      | G-E        | G         | G                | G       | -                  | F              | -          | G            | G        | F            | N          | G       | G         | G             |
| Sencor®                      | G          | F         | E                | F-G     | G                  | G              | G          | E            | G        | F            | P-F        | G       | G         | G             |
| <b>POSTEMERGENCE</b>         |            |           |                  |         |                    |                |            |              |          |              |            |         |           |               |
| Aim®                         | E          | G         | E                | G       | G                  | G              | -          | E            | G        | G            | E          | E       | G         | G-E           |
| Atrazine                     | G-E        | F         | E                | G       | P                  | G-E            | F-G        | G            | F-G      | G            | F          | F       | F-G       | -             |
| Basagran®                    | G          | G         | G                | G       | P                  | F              | -          | -            | G        | F-G          | F-G        | G       | P         | G             |
| Callisto®                    | E          | G-E       | -                | -       | -                  | G              | -          | G-E          | -        | F            | G          | G       | G         | N             |
| Chateau®                     | E          | G         | -                | -       | G                  | F-P            | -          | G-G          | F-G      | F-G          | G          | F-G     | F-G       | F-G           |
| Cobra®                       | E          | G-E       | -                | E       | E                  | G-E            | -          | F-G          | G        | G-E          | E          | G       | F-G       | G             |
| Diquat                       | E          | G         | E                | E       | G-E                | G              | E          | E            | G        | F-G          | G          | G       | G         | G             |

| Herbicide  | Amaranthus | Cocklebur | Evening primrose | Eclipta | Florida beggarweed | Florida pusley | Parthenium | Lambsquarter | Purslane | Morningglory | Nightshade | Ragweed | Sicklepod | Southern sida |
|------------|------------|-----------|------------------|---------|--------------------|----------------|------------|--------------|----------|--------------|------------|---------|-----------|---------------|
| Enquik     | E          | G         | E                | E       | E                  | G              | G          | F-G          | G        | F            | G          | G       | G         | G             |
| Fusilade®  | N          | N         | N                | N       | N                  | N              | N          | N            | N        | N            | N          | N       | N         | N             |
| Gramoxone® | E          | G         | E                | E       | G-E                | G              | P          | E            | G        | F-G          | F          | G       | G         | G             |
| Impact®    | G-E        | G-E       | -                | -       | -                  | F-G            | -          | G            | -        | G            | E          | G-E     | -         | G             |
| Laudis®    | E          | E         | -                | -       | -                  | G              | -          | G-E          | N        | F            | G          | G-E     | F         | N             |
| Lorox®     | E          | G         | -                | -       | G                  | G              | -          | E            | E        | F-G          | -          | G       | G         | G             |
| Matrix®    | G          | G-E       | G                | G       | G                  | G              | -          | P            | -        | G            | P          | G       | -         | -             |
| Poast®     | N          | N         | N                | N       | N                  | N              | N          | N            | N        | N            | N          | N       | N         | N             |
| Pursuit®   | E          | G         | G                | G       | -                  | F              | -          | F-G          | P-F      | G            | G          | G       | P         | -             |
| Select®    | N          | N         | N                | N       | N                  | N              | N          | N            | N        | N            | N          | N       | N         | N             |
| Sandea®    | G          | G         | -                | F       | -                  | P              | -          | P            | F        | G            | -          | F       | -         | -             |
| Sencor®    | E          | G         | G                | F       | G                  | G              | P          | G            | F-G      | P            | P          | F-G     | F         | F             |

**N** = no control, **P** = below 60%, **F** = 60%–80%, **G** = 80%–90%, **E** = 90%–100%, - = no data  
 \* Sedges and other perennial weeds will have initial burndown, then regrowth occurs.

Table 2. Estimated effectiveness of herbicides on selected grasses and sedges in vegetables

| Herbicide                    | Grasses       |               |                       |           |            |          |             | Sedges          |                 |               |  |
|------------------------------|---------------|---------------|-----------------------|-----------|------------|----------|-------------|-----------------|-----------------|---------------|--|
|                              | Barnyardgrass | Bermuda grass | Broadleaf signalgrass | Crabgrass | Goosegrass | Panicums | Sprangletop | Purple nutsedge | Yellow nutsedge | Annual sedges |  |
| <b>PREPLANT INCORPORATED</b> |               |               |                       |           |            |          |             |                 |                 |               |  |
| Callisto®                    | -             | -             | F-G                   | G         | G          | F-G      | -           | N               | N               | N             |  |
| Chateau®                     | G             | -             | -                     | G         | G          | G        | -           | N               | N               | N             |  |
| Command®                     | E             | G-E           | E                     | E         | E          | G-E      | -           | P               | P               | P             |  |
| Dacthal®                     | G             | G             | F                     | G         | G          | F        | -           | P               | P               | P             |  |
| Devrinol®                    | E             | E             | E                     | E         | E          | G-E      | -           | P               | F               | F             |  |
| Dual                         | G             | G-E           | E                     | E         | E          | G        | G           | P-G             | G               | G-E           |  |
| Eptam®                       | E             | E             | G                     | E         | E          | G-E      | -           | G-E             | G               | E             |  |
| Prefar®                      | G             | G             | G                     | G         | G-E        | F-G      | -           | P               | P               | P             |  |
| Pursuit®                     | F             | P             | F                     | F         | F          | P-F      | P           | F-G             | G               | E             |  |
| Sandea®                      | N             | N             | N                     | N         | N          | N        | N           | G-F             | F-G             | G             |  |
| Sencor®                      | G             | F-G           | G                     | G-E       | G-E        | F-G      | -           | P               | P               | P             |  |
| Treflan®                     | E             | G             | G-E                   | E         | E          | G        | -           | P               | P               | P             |  |
| <b>PREEMERGENCE</b>          |               |               |                       |           |            |          |             |                 |                 |               |  |
| Alanap                       | P             | P             | F                     | F         | P          | P        | -           | P               | P               | P             |  |
| Atrazine                     | F             | P             | F-G                   | F         | F          | P        | P           | P               | P               | P             |  |
| Caparol®                     | F-G           | F-G           | F-G                   | G         | F-G        | F        | -           | P               | P               | P             |  |
| Command®                     | E             | E             | E                     | E         | E          | E        | -           | P               | P               | P             |  |

| Herbicide            | Grasses       |               |                       |           |            |          |             | Sedges          |                 |               |
|----------------------|---------------|---------------|-----------------------|-----------|------------|----------|-------------|-----------------|-----------------|---------------|
|                      | Barnyardgrass | Bermuda grass | Broadleaf signalgrass | Crabgrass | Goosegrass | Panicums | Sprangletop | Purple nutsedge | Yellow nutsedge | Annual sedges |
| Curbit®              | E             | G-E           | E                     | E         | E          | G-E      | G           | P               | P               | P             |
| Dacthal®             | F-G           | F-G           | F                     | G         | G          | F        | -           | P               | P               | P             |
| Devrinol®            | E             | E             | E                     | E         | E          | G-E      | -           | P-F             | F               | F-G           |
| Dual                 | E             | E             | E                     | E         | E          | G-E      | G           | P-F             | F-G             | E             |
| Goal®                | E             | P             | F                     | F         | F          | P        | -           | P               | F               | G             |
| Kerb®                | G-E           | P             | G                     | G-E       | G-E        | F-G      | -           | P               | P               | P             |
| Lorox®               | F-G           | -             | G                     | G         | G          | F-G      | -           | F               | F               | F             |
| Matrix®              | P             | P             | P                     | P         | P          | P        | P           | P               | P               | P             |
| Prowl®               | E             | E             | E                     | E         | E          | G-E      | E           | P               | P               | P             |
| Pursuit®             | F             | P             | F                     | F         | F          | P-F      | P           | G               | G-E             | E             |
| Sencor®              | F             | F             | G                     | G         | G-E        | P        | P           | P               | P               | P             |
| <b>POSTEMERGENCE</b> |               |               |                       |           |            |          |             |                 |                 |               |
| Aim®                 | P             | P             | P                     | P         | P          | P        | P           | P               | P               | P             |
| Atrazine             | F-G           | F             | F                     | F         | F          | F        | F           | P               | P               | P             |
| Basagran®            | P             | P             | P                     | P         | P          | P        | P           | P-F             | F-G             | G-E           |
| Callisto®            | -             | -             | G-F                   | F-G       | F-G        | -        | -           | N               | N               | N             |
| Cobra®               | N             | N             | N                     | N         | N          | N        | N           | N               | N               | N             |
| *Diquat              | E-G           | G             | E                     | G-E       | G-E        | G        | G           | F-G             | F-G             | G             |
| Enquik               | P-F           | P-F           | P-F                   | P-F       | P-F        | P-F      | -           | F               | F               | F             |
| Fusilade®            | E             | E             | E                     | E         | E          | E        | E           | P               | P               | P             |
| *Gramoxone®          | E             | E             | E                     | E         | E          | E        | E           | F-G             | F-G             | G             |
| Impact®              | G             | -             | -                     | G         | G          | -        | -           | N               | N               | N             |
| Laudis®              | G             | -             | G                     | F-G       | G          | G-E      | -           | N               | N               | N             |
| Lorox®               | G             | F-G           | G                     | G         | G          | G        | G           | F               | F               | F-G           |
| Matrix®              | P             | P             | P                     | P         | P          | P        | P           | P               | P               | -             |
| Poast®               | E             | G-E           | E                     | E         | G          | E        | E           | N               | N               | N             |
| Pursuit®             | F             | P             | P-F                   | P         | F          | P-F      | P           | G-E             | G-E             | G-E           |
| Select®              | E             | G-E           | G-E                   | G-E       | E          | E        | E           | N               | N               | N             |
| Sandea®              | N             | N             | N                     | N         | N          | N        | N           | E               | E               | E             |
| Sencor®              | F             | P             | P-F                   | F         | F-G        | P        | P           | P               | P               | P             |

**N** = no control, **P** = below 60%, **F** = 60–80%, **G** = 80%–90%, **E** = 90%–100%, - = no data  
\* Sedges and other perennial weeds will have initial burndown, then regrowth occurs.