

## Educational Programs Offered

Master Gardener Training

Master Gardener Plant Clinic  
(M-F 9-12 & 1-4)

Home Gardening Classes

Newcomer Classes

Small Farm Living Clinics

Equine Institute & Trade Show

Meat Goat Training Course

Many more...



**Marion County Extension Service**  
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Ocala, FL 34470  
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# Marion County Newcomer's Guide



For the Homeowner and Small Farmer:  
*A Quick Guide for Gardening*

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**Local Agencies**

**Marion County Extension Service**  
2232 NE Jacksonville Rd.  
Ocala, Fl. 34470  
352-671-8400

**Information County Government**  
352-438-2300

**USDA Natural Resources  
Conservation Services (NRCS)**  
2303 NE Jacksonville Rd  
Ocala, Fl 34470  
352-622-3971

**Division of Forestry**  
Marion County Forester  
2735 NE Silver Springs Blvd  
Ocala, Fl 32670  
352-732-1201

**Florida Fish & Wildlife  
Conservation Commission**  
1239 SW 10th St.  
Ocala, Fl 34474  
352-732-1225

**Local Organizations/  
Clubs**

**Florida Dairy Goat Association**

**Florida Meat Goat Association**

**Meat Sheep Alliance of Florida**

**Florida Blueberry Association**

**Marion/Citrus County Grape  
Growers Association**

**Florida Organic Growers Assoc.**

**Southern Commercial Rabbit  
Producers Association, Inc**

**Marion County Cattlemen Assoc.**

**Marion County Horseman Assoc.**

**Pioneer Garden Club**

**Bellevue Garden Club**

**Brick City Garden Club**

**The Dunnellon Garden Club**

**Ocala Camellia Society**

**Marion County Rose Society**

**Fl. Native Plant Society (Marion  
County Chapter)**

**4-H ; Master Gardeners**

**Useful Websites**

[www.marioncountyfl.org](http://www.marioncountyfl.org)

[www.fl-ag.com](http://www.fl-ag.com)

<http://smallfarms.ifas.ufl.edu>

[Solutionsforyourlife.com](http://Solutionsforyourlife.com)

[www.creatures.ifas.ufl.edu](http://www.creatures.ifas.ufl.edu)

[www.plants.ifas.ufl.edu](http://www.plants.ifas.ufl.edu)

**Newsletters**

Forever Gardening

Small Farm News

Marion County Livestock News

**Recommended  
Publications**

- Florida Vegetable Gardening Guide
- Turfgrass Management
- Bedding Plants
- Landscape Plants / Trees
- Bahiagrass
- Forage planting and establishment methods
- Plants that poison farm animals
- Enterprise budgets

## Various Alternative Enterprises

### FORESTRY

- Christmas trees
- Timber
- Agro-forestry (Silvopasture, Forest Farming, Windbreaks)
- Mushrooms

### TREES FRUITS/NUTS

- Lemon/lime
- Persimmons
- Peaches/nectarines/plums
- Pecans/chestnuts/figs

### SMALL FRUITS

- Blackberry, Raspberry
- Blueberry
- Grapes
- Strawberries
- Gourds

### LIVESTOCK

- Cattle (beef/dairy)
- Sheep (hair, wool, meat, dairy)
- Goats (meat, dairy)
- Rabbits (meat, pets, show, pelts)
- Poultry– includes turkeys, ducks, guineas, geese, peafowl (meat, eggs, show, chicks)

- Gamebirds-include pheasants & quail (breeding, meat, hunting)

- Llamas/Alpacas- (fiber & breeding: markets, pack animals for flocks)

- Beneficial insects

- Bees- (honey, pollinators)

- Aquaculture– food fish, bait, fee fishing, pets)

- Vermiculture/Worms- (bait, compost kits)

- Horses- (training, breeding, boarding, pleasure)

### NURSERY STOCK

- Cut flowers
- Dried ornamentals
- Turf
- Herbs
- Wildflowers

### OTHER CROPS

- Hay production (coastal, perennial peanut)

### VEGETABLES

- Salad mix variety
- Traditional
- Specialty crops

### ORGANICS

- Crops
- livestock

### Environmental Conditions

Soils.....	4
Climate.....	4

### Best Management Practices (BMP's)

Homeowner and Small Farms .....	5
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### Plants to grow..... Plants to know

Trees/shrubs.....	6
Poisonous plants.....	7

### Turf/Pasture Management

Types of turf.....	8
Fertilizer recommendations.....	9
Weed management.....	10
Weed control.....	11
Insect pests.....	12

### Wildlife Encounters

Poisonous species.....	13
Attracting wildlife.....	13
Gophers.....	13
Living Green.....	13

### Water Districts

St. Johns River Management District.....	14
South West Florida Water Management District.....	14

### Small Farm Living

Land use.....	15
Livestock guidelines.....	16 & 17
Enterprise selection.....	18

### Appendix (Contact Marion County Extension Service for more information.)

Local agencies.....	19
Local organizations/clubs.....	19
Useful websites.....	19
Newsletters.....	19
Publications.....	19

## SOILS

The basic foundation of gardening for a homeowner or small farmer is the soil. That is why it is so important to have a practical knowledge of the soil's characteristics and needs. It is important to be familiar with your soil and determine its condition in order to plan intelligent use of the land, whether it is pasture, lawn or landscape. Due to lack of knowledge about turfgrass and pasture requirements, sometimes well meaning gardeners tend to over or under fertilize, or may lime when unnecessary.

A soil test can help you determine the condition of your soil in order to know what amendments you need and how to select the appropriate plants, turf and forages. For example, the north central Florida area is rich in phosphorus, often eliminating the need for additional phosphorous (P).

## DESIRABLE PH RANGES FOR TURF AND PASTURES

Grasses For:	Bahia grass	Bermuda grass	Centipede grass	St. Augustine grass	Zoysia grass	Rye grass
Lawns	5.5-6.5	5.0-6.5	5.5-6.5	5.5-7.5	5.5-7.5	6.0-6.5
Pasture	5.0-6.0	5.5-6.0				6.0-6.5

NOTE: it is recommended for pastures (grazing only) and a good idea for home lawn soils to be tested at least every three years due to changes in the soil. Soil kits are available at the Extension office.

**Chances are the soil is different from what you are accustomed to. As a matter of fact Florida is so different that soil types even vary within Marion County. Contact NRCS, (352)622-3971, for soil type by utilizing the soil survey book for Marion County.**

**What about the North Central Florida climate?**

Average temperature: 91.7°F (summer) ; 39.9°F (winter)

Hardiness zone: # 8b-9a– tolerates to low of (8b)15-20; (9a)20-25° F

Average rainfall: 2.5-6.5 inches per year

Humidity: high

Livestock guidelines (*continued*)**Raising Cattle**

SELECTION: identify why you want to raise cattle for economic return, Agriculture classification of land or home use.

HOUSING & EQUIPMENT: handling facility  
Ex: (holding pens, crowding pen, working chute, squeeze chute, loading chute and scales).

HEALTHCARE & MANAGEMENT: need to develop a sound health program for your herd to control disease, internal & external parasites.

FEEDING: North Central Florida primary feed source is warm season grasses from April– November. Provide hay or winter pasture from December– March. Provide free-choice mineral block.

MARKETING: direct market, auction, breeding stock, niche markets.

**Raising Swine**

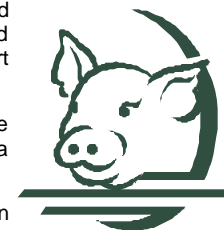
SELECTION: Selecting a hog should be based on your goals such as raising for meat, breeding or as a pet. The hog should be weaned approximately 40 pounds, eight weeks old, de-wormed and vaccinated. Look for a healthy hog with good appetite, alert and good size.

HOUSING & EQUIPMENT: Hogs should be provided some type of shelter from the sun and wind. They also need a self-feeder and waterer.

HEALTHCARE & MANAGEMENT: Treat for parasites when needed, provide adequate feed and free choice water, protect from weather, keep cool in summer.

FEEDING: need a high energy concentrated grain that is low in fiber

MARKETING: Raising one hog at a time two times a year will provide enough meat for a family of four. Other markets are 4-H/FFA show projects, breeding and auctions.



PLEASE NOTE: THESE ARE GENERAL GUIDELINES ONLY ; INFORMATION IS INCOMPLETE CONTACT YOUR EXTENSION AGENT FOR ADDITIONAL INFORMATION.

## Livestock guidelines

Raising livestock for food, income or pleasure can be rewarding; it is the owners responsibility to understand what is involved with raising livestock such as: selection, housing and equipment, costs, health care and management, feeding and marketing when applicable.



Recommended maximum stocking rates:

- ◆ 6-8 goats per acre ◆ 1 cow/calf per 2.5 acres ◆ 1 horse per 2.5-3 acres

### Raising Horses

**SELECTION:** does the horse fit your needs such as breed, temperament, age, health, level of training, riding style, past injuries/illnesses, overall purpose of owning a horse(s).

**HOUSING & EQUIPMENT:** fenced paddock/pastures, run-in shelter and/or barn

**HEALTH CARE & MANAGEMENT:** It is essential to develop a rapport with a veterinarian. Priorities for proper horse health management are implementing an appropriate parasite control schedule, vaccination schedule and appropriate hoof care. Equine Encephalitis (EEE & WEE) is one of the most important vaccinations for horses in Florida.

**FEEDING:** forages (hay and/or pasture), supplemental grain



### Raising Goats/Sheep

**SELECTION:** selecting a goat should be based on your goals such as raising for food (meat or dairy), breeding or as a pet.

**HOUSING & EQUIPMENT:** Feed and water troughs, shelter, holding pen, fencing (fence not only to keep goats/sheep in but to keep predators out).

**HEALTHCARE & MANAGEMENT:** Parasites( coccidiosis and haemonches) are one of the biggest concerns.

**FEEDING:** goats prefer to browse (shrubs, leaves), permanent pastures, grain and mineral block. Provide a well balanced diet

**MARKETING:** Ethnic population, auctions, breeding, 4-H/FFA projects. Breeding program should be based upon marketing schedule.



The use of BMPs have been developed to reduce potential non-point source pollution. For homeowners or small farmers, these are comprised of practices that can be carried out to ensure that pollution is minimized. By incorporate BMPs such as appropriate plant location, irrigation, fertilizer application, pest management and pesticide safety, to insure environmental safety, effective, practical and economically viable. To learn more about BMP's contact the Extension office.

### Homeowner

### Small Farms

- Use pesticides and fertilizers responsibly to avoid runoff, which can result in water pollution.
- Use appropriate site design and plant selection.
- Use appropriate rates and methods of applying fertilizer and irrigation.
- Use Integrated Pest Management (IPM) to minimize pests and apply chemicals only when appropriate.
- Apply pesticides properly, use most appropriate for your farm, use only when necessary, consider using Integrated Pest Management techniques (IPM)
- Use appropriate rates and methods of applying fertilizers
- Learn about soils– soil survey, soil Ph and fertility levels
- Control invasive plants
- Utilize proper stocking rates, pasture rotation

### Plants to Grow in Marion County

This plant selection is only a sample of many great performers for this area. For more details, refer to [http:// www.cfcc.cc.fl.us/fl.us/fl.plats/50plants.htm](http://www.cfcc.cc.fl.us/fl.us/fl.plats/50plants.htm) or see the Edis website, IFAS Circular 858, <http://edis.ifas.ufl.edu/MG077>, <http://hort.ifas.ufl.edu/woody/index.htm>

Scientific Name	Common Name
<b><u>Trees</u></b>	
• <a href="#">Ilex attenuata 'East Palatka'</a>	East Palatka Holly
• <a href="#">Quercus virginiana</a>	Live Oak
• <a href="#">Lagerstromea indica</a>	Crape myrtle
• <a href="#">Chilopsis linearis</a>	Desert Willow
• <a href="#">Magnolia virginiana</a>	Sweetbay Magnolia
<b><u>Palms</u></b>	
• <a href="#">Butia capitata</a>	Pindo Palm
• <a href="#">Phoenix canariensis</a>	Canary Island Date Palm
• <a href="#">Rhapidophyllum hystix</a>	Needle Palm
• <a href="#">Sabal Palmetto</a>	Sabal Palm
• <a href="#">Serenoa repens</a>	Saw Palmetto
<b><u>Shrubs</u></b>	
• <a href="#">Camellia japonica</a>	Japanese Camellia
• <a href="#">Illicium anisatum</a>	Anise
• <a href="#">Podocarpus macrophyllus 'Maki'</a>	Podocarpus
• <a href="#">Raphiolepis indica</a>	Indian Hawthorn
• <a href="#">Buxus microphylla 'Schellings'</a>	Shellings Holly
<b><u>Groundcovers</u></b>	
• <a href="#">Hemerocallis Spp.</a>	Daylilly
• <a href="#">Cryptomium falcatum</a>	Holly Fern
• <a href="#">Hedera helix</a>	English Ivy
• <a href="#">Juniperus conferta</a>	Blue Pacific Juniper
• <a href="#">Trachelospermum asiaticum</a>	Dwarf Confederate Jasmine
<b><u>Plants To Avoid</u></b>	
The following plants and trees have been found to lack ideal qualities for this area and are not likely to be the best selection for successful gardening. Although sold in local nurseries, this caution should be noted.	
• <a href="#">X Cupressocyparis leylandii</a>	Leyland Cypress
• <a href="#">Photinia X fraseri</a>	Fraser Photinia, Red Tip
• <a href="#">Liriope muscari 'Evergeen Giant'</a>	Lilyturf, Monkey Grass, Liiriope
• <a href="#">Quercus laurifolia</a>	Laurel Oak
• <a href="#">Quercus nigra</a>	Water Oak

### Land use guidelines

*Living on a small farm is usually a lifestyle choice. Small farms range in size from a large backyard to a number of acres. Whether you are pursuing a hobby, reducing your family's food cost or seeking a supplemental income; utilizing your land properly should be your first consideration.*

***There are several environmental factors to consider when determining what your land is able to produce.***

***Some of the factors are:***

1. Soil type– the soil type indicates the quality of your soil, drainage ability and potential productivity.
2. Topography- sloping land or flat land can have impact on what you are able to do with your land
3. Water– sources, quality and location
4. Range of light– Full sun, partial shade, filtered shade, full shade
5. Size– this is a very important indicator of what type of enterprise is most suitable. For example is your land more for an exercise area, home use or are you able to produce enough commodity, sustainability and profitability with the amount of products you have.
6. Forage– the type of grass, proper fertilizer applications, amount of rain, weed management and pasture rotation will influence how many animals you can carry and the amount of supplemental feed required
7. Carrying capacity– a type of animal can influence the utilization of your land for example: horses usually cause more damage to grasses than cows, goats prefer to browse, a 1,000 lb cow will eat more than a 100lb goat

\* All of these factors can influence the scale of production your land can sustain over time\*

St. John’s River Water Management & South West Florida Water Management District

**Marion County has two water management districts:**

- East of I-75 is St John’s River Water Management (386-326-4500 or [www.sjr.state.fl.us.com](http://www.sjr.state.fl.us.com)),
- West of I-75 is South West Florida Water Management district (352-796-7211 or [www.watermatters.org](http://www.watermatters.org))

**Seasonal Changes in Florida**

Florida does not have the dramatic weather changes that our neighbors to the north do. However, seasonal fluctuations in rainfall and temperature do occur, which means the water needs of our lawns and landscapes change too.

**Fall/Winter**

From October through February temperatures get cooler and plants go into a dormant or resting stage. Irrigation can be reduced to once every 10-14 days.

**Spring/Summer**

March, April and May are months with little rainfall and the driest soil conditions. Naturally, outdoor water use tends to be high then. But plants will show you when they need water. For example, plants and shrubs will need water at the first sign of wilting. And, wilted grass usually folds along the blade line or does not spring up after you walk on it.

The Florida rainy season historically begins in June and continues through September. During the summer, lawns and landscapes need about one to two inches of water a week. If your area experiences a normal rainfall in the summer, a sprinkler system may not have to be turned on at all!

**Florida law requires rain sensor devices on automatic lawn sprinklers systems**

*Florida Statute, Part VI, Chapter 373.62: Water Conservation; automatic sprinkler systems.- - Any person who purchases and installs an automatic lawn sprinkler system after May 1, 1991, shall install, and must maintain and operate, a rain sensor device or switch that will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred.*

*For more information regarding up-to-date water restrictions, irrigation requirements for crops, permits or all other water issues or questions contact your water management district*

Plants to Know in Marion County

*Vegetation helps sustain life. We eat many plants, herbs and so forth in our daily diet and provide forages to livestock in their diets. But we must be **aware** of toxic plants. Some part of your ornamental plants or plants in your pastures may contain poisons. Symptoms can range from simple skin irritation, stomach problems to potential killers. NOTE; Poisonous plants should be completely eliminated from your **pastures** . Comprehensive poisonous plant information is available at the Extension office and Poison Control [www.fpicjax.org](http://www.fpicjax.org)*

**The following chart lists some of the common poisonous plants:**

Plant	Humans	Livestock	
		Ruminants	Monogastric
Lantana	X	X	X
Showy Croton	X	X	X
Oleander	X	X	X
Castor bean	X	X	X
Dieffenbachia	X	X	X
Poison Ivy, Sumac, Oak	X		
Chinaberry		X	X
Pokeweed	X	X	X
Boxwood			X
Common Nightshade		X	X
Cherry tree	X	X	X
Bracken			X
Yellow Jessamine	X	X	X
Jimsonweed		X	X
Pigweed		X	

Whether you are establishing or maintaining a lawn or pasture, it is important to learn about grasses that grow in this area, along with their adaptations as well as how to manage them, such as fertilization recommendations, based on uses of forage, insect pest management and weed control.

Comparisons of grasses grown in Marion County:

Environment	Zoysia grass	St. Augustine grass	Centipede grass	Bermuda grass	Bahia grass
Mowing height (inches)	1-2	3-4	1-2	1-1.5	3-4
soil	wide range	wide range	acidic	wide range	acidic
Drought tolerance	medium	medium	medium	good	good
Shade tolerance	good	good	fair	poor	poor
Nematode Tolerance	good	good	poor	poor	very good
Maintenance level	good	medium	low	high	low
Uses	lawns Empire/Ulimate (based on existing information)	lawns	lawns	lawns, pasture, golf courses	lawns, pasture
Establishment methods	sod, plugs, sprigs	sod, plugs, sprigs	seed, sod, sprigs	sod, sprigs, plugs	seed, sod

\*Poisonous Snakes

- Diamond-backed Rattlesnake
- Pygmy Rattlesnake
- Cottonmouth
- Coral Snake

Venomous spiders

- Southern Black Widow
- Red Widow
- Brown Recluse

The Gopher Tortoise: a species in decline

Gopher tortoises are afforded legal protection throughout their range. A permit is always required to possess, study or relocate

**Please Note:**

Before destroying or removing any wildlife from your property, check with the Florida Fish & Wildlife Commission at 1239 SW 10th Street, Ocala, FL, Ph:(352)732-1225.

Florida laws may be different than other states.

For more information on rare, threatened and endangered species or nuisance wildlife contact Florida Fish & Wildlife

- **Florida State**
- Bird- Mockingbird
- Animal- Florida Panther

**\*Living Green**

“Green communities are designed with the idea that people and nature can coexist.”

“Many features in green communities make them one step closer to becoming communities that conserve natural resources (e.g., water, energy, and wildlife). Construction of energy efficient homes and buildings, preservation of open space, landscaping with native plants, and conservation of natural areas and wildlife are just a few ways in which green communities are unique communities.”

To learn more about Living Green visit the University of Florida Living Green website [http://livinggreen.ifas.ufl.edu/what\\_you\\_can\\_do.html](http://livinggreen.ifas.ufl.edu/what_you_can_do.html)

Attracting Wildlife

Many residents enjoy the benefits of attracting wildlife into their landscapes. This can be accomplished by being aware of and incorporating the food, shelter and water requirements of desirable wildlife, into the landscape with these methods;

- Aquascaping
- Bird feeding tips
- Butterfly gardening
- Plant Native plants for wildlife
- Water for wildlife

To learn more about landscaping for wildlife and/or wildlife happenings visit [http://www.wec.ufl.edu/extension/wildlife\\_info/](http://www.wec.ufl.edu/extension/wildlife_info/)

Insect pests

Life cycle and damage	Bahia	Bermuda	St. Augustine	Centi-pede	Spring	Winter	Root damage	Wilting	Yellow/Brown patches	tunneling
	✓	✓	✓			✓			✓	
			✓		✓				✓	
		✓	✓		✓		✓		✓	✓
		✓	✓	✓	✓		✓	✓	✓	

Fertilizer Recommendations

**Lawns**

Fertilizer recommendations depend upon grass type, level of maintenance, and environment, best determined by a soil test. There are three primary elements, nitrogen, (N) phosphorus (P) and potassium (K) necessary to promote healthy growth. For most turfgrass two applications of a complete fertilizer per year are adequate, March and September.

- St. Augustine: 2-4 lbs. nitrogen per 1,000 square feet, per year.
- Bahiagrass: 1-2 lbs. nitrogen per 1,000 square feet, per year.

Due to previous fertilization and naturally occurring P in our north-central Florida soils, some soils need little or no P added. Your fertilizer analysis (N-P-K) may look something like 15-0-15 or 15-2-15. You can learn how to submit a soil sample for a complete analysis, to the University of Florida by contacting the Marion County Extension Office. This test will determine if phosphorus is needed as well as list macro and micronutrients to better determine fertilizer needs. (Reference, UF publication,) **Figuring Out Fertilizer Rates For the Home Lawn**, by, L.E. Trenholm and J.B. Unruh, <http://edis.at.ufl.edu/EP221>

**Pastures**

Fertilizer recommendations depend upon soil test results, management objectives, land capabilities and your fertilizer budget.

Low-N option (for grazed pastures only)- Apply approximately 50 lb/acre of nitrogen

Medium-N option ( for grazed and minimal hay cutting)- \_Apply around 100 lb/acre of nitrogen.

High- N option ( hay production)- Due to stripping of the nutrients apply approximately 160lb/acre of nitrogen.

For established stands of bahiagrass, apply fertilizer in early spring (March) and Fall (September).

Fertilizing for establishment of perennial grass (especially on sandy soils)- it is recommended to fertilize when shoots begin to emerge and roots are being developed to prevent leaching of nutrients.

Weed Management

Weeds can simply be defined as unwanted plants. Understanding of growth habits and type of weed are important in applying the best control strategy. Weed control is essential to establishing and maintaining your pasture and/or lawn. The first and best method of weed control begins with proper management practices.

Proper management tools

- Variety selection -rotational grazing (Pasture)
- Traffic control -proper stocking rate (Pasture)
- Mowing & watering -pre/post emergence herbicide
- Pest control -proper pH & fertility
- Scouting & sanitation

Life cycles

- Annuals– one growing season
- Biennials– two growing seasons
- Perennials– three or more growing seasons

Types of Weeds

- Grasses- Long leaves with round stems. Ex. Crabgrass, crowfoot grass, sandspur, paspalum
- Sedges– generally stems are triangular-shaped and favor a moist habitat. Ex. Nutsedge, Globe sedge, Purple nutsedge
- Broadleaf- have net-like veins in their true leaves and usually showy flowers. Ex. Pusley, White clover, dogfennel, dandelion, cutleaf-evening– primrose, buttercup, tropical soda apple, ragweed

Types of Herbicides (weed control)

- Selective– controls certain plant species without affecting other plants
- Nonselective– control green plants regardless of species, kills all
- Systemic– herbicide moves through the vascular system of plant
- Contact– herbicide affects only portion of plant that has contact with the herbicide; does not kill underground plant parts

Weed Control (recommended herbicides)

**Weed Management Lawns** Re: (ENH884) or <http://turf.ufl.edu>

This is a sample of herbicides safe to use on the most popular turf varieties for homeowner 's use. Please note; for your safety *it is the law* to read and follow the container label directions and warnings exactly.

Note-Atrazine is not available in its pure form at this time due to ground water contamination concerns. For other broadleaf weed controls refer to a professional pesticide applicator.

<b>Broadleaf Weed Herbicides</b>	<b>St. Augustine-grass</b>	<b>Bahia-grass</b>	<b>Bermuda-grass</b>	<b>Centipede-grass</b>
Atrazine (weed & Feed)	Yes	No	No	Yes
Dicamba	Yes	Yes	Yes	Yes
Dicamba+2,4-D, MCPP,and/or MCPA,	No	Yes	Yes	Yes
<b>Grass-like Weed Herbicides</b>	<b>St. Augustine-grass</b>	<b>Bahia-grass</b>	<b>Bermuda-grass</b>	<b>Centipede-grass</b>
Sethoxydim	No	No	No	Yes
Benefin (pre-emergent)	Yes	Yes	Yes	Yes
<b>Sedge-like weed Herbicides</b>	<b>St. Augustine-grass</b>	<b>Bahia-grass</b>	<b>Bermuda-grass</b>	<b>Centipede-grass</b>
Halosulfuron	Yes	Yes	Yes	Yes
Imazaquin	Yes	No	Yes	Yes

**Weed Management Established Pastures**

1. **Weedmaster (Dicamba & 2,4-D)-** safe for grasses, controls thistles, dogfennel, other broadleaves
2. **Remedy (triclopyr)-** safe for grasses, controls woody plants, tropical soda apple, prickly pear cactus
3. **Crossbow (triclopyr & 2,4-D)-** safe for grasses, controls blackberry brambles, brush and various briars.
4. **Pasturegard (triclopyr & fluroxypyr)-** *new to market*—safe for grasses, controls woody plants and brush
5. **Milestone (aminopyalid)** *new to market* - control thistles, nettle

**Note:** These recommendations for pastures and lawns are not complete and require additional information. ALWAYS FOLLOW LABEL INSTRUCTIONS.