

# Orange County Fertilizer Application Education Course for Citizens

## Welcomel

Thanks for taking the time to learn how to keep Central Florida beautiful while protecting our water quality!

# Why is Orange County Requiring this Training?

Many fertilizers contain nitrogen and phosphorus, and excess nitrogen and phosphorus are known to cause algae blooms, fish kills, and other water quality problems.

Anyone applying fertilizer in Orange County should understand how to prevent pollution from the nutrients they spread on their landscape.

Orange County has regulated fertilizer application since 2009 to help protect our lakes, rivers, springs and groundwater. (Ordinance was updated in 2017.)



Only individuals that complete this online educational course may apply fertilizers during the rainy season restriction period.



## **What Does the Ordinance Require?**

We would love for you to read the <u>whole ordinance</u>! But if not, here are some key factors that are included in the regulation:

- Stores that sell fertilizer must display information about our ordinance
- Never use fertilizer containing phosphorus (unless a soil test proves it is needed)
- Never use fertilizer containing nitrogen in summer months (trained people are exempt)
- If you choose to apply fertilizer with nitrogen, make sure 65% is slow-release nitrogen type
- Keep fertilizer more than 15 feet away from wetlands and water bodies
- Use a broadcast fertilizer spreader that has a deflector shield
- Clean up fertilizer that spills or could end up on sidewalks, driveways, or streets
- Keep your grass clippings and yard debris out of roads, gutters, and storm drains
- Ensure your landscape contractor complies with the fertilizer ordinance, too!

## **What Should I Learn Here?**

When you finish this course, you will know how making good fertilizer decisions helps to protect our water quality, and you will be able to answer the following key questions:

- > Do I need to fertilize my landscape?
- ➤ How do I read a fertilizer label?
- ➤ How much fertilizer should I apply?
- ➤ How do I choose, calibrate and use a fertilizer spreader?
- > What is a fertilizer free zone?
- > Am I responsible for compliance by my lawn care professional?

## **Course Goals**

#### > Do I need to fertilize my landscape?

- How do I read a fertilizer label?
- How much fertilizer should I apply?
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## Do I Need to Fertilize My Landscape?

You might need to fertilize, or you might not. Use a soil test to help you understand what nutrients are present in your soil.

Please be careful with fertilizer! Too much can result in the following negative impacts:

- Weak plants that are susceptible to disease and pests
- Wasted money
- Harm to the environment via pollution runoff and leaching through soils

Florida soils usually have plenty of phosphorus and rarely need more.

#### Do I Need to Fertilize My Landscape?



Excess nutrients in the form of nitrogen and phosphorus can harm waterways miles from your home.

Traveling with stormwater and leaching through soil into the aquifer, excess nitrogen and phosphorus can cause algae blooms and reduced visibility, and even cause fish kills.

**Here's some good news!:** You can buy fertilizer that contains zero nitrogen or phosphorus. Look for products that contain minerals such as iron and magnesium, or are labeled as containing, "micronutrients."

## **Soil Tests in Orange County**

Contact the Orange County Agricultural Extension Service (also known as IFAS) for information about having your soil tested: 407-254-9200

(In Orange County, you must always get a soil test before applying fertilizer that contains phosphorus – all year long, not just during the rainy season)

## **Course Goals**

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- How much fertilizer should I apply?
- How do I choose, calibrate and use a fertilizer spreader?
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- Am I responsible for compliance by my lawn care professional?



## Why Is Reading Label Details So Important?

The Orange County Fertilizer Management Ordinance expects you to know the following things before you apply fertilizer:

- The amount of slow-release nitrogen (N) in your fertilizer (must be at least 65%)
- The total pounds of N in the bag of fertilizer you intend to use
- The size of the area you need to fertilize
- The size of the area your bag of fertilizer should cover
- Whether the label application rates or County requirements result in your applying the least amount of N—always choose the one that applies less N\*

\*NEVER apply more than 1 pound of N per 1,000 square feet (SF), and if your label recommends less than 1 pound per 1,000 SF, follow the label

## When shopping, please use the following helpful information on the fertilizer bag:

- Where to use the fertilizer (turf, trees, plants?)
- Percentage of Nitrogen, Phosphorus, and Potassium
- How much of the nitrogen is "slow-release" type
- How much to apply
- How much area your bag of fertilizer will cover
- Which number to choose on your spreader dial

TURFGRO
PROFESSIONAL
Turf Fertilizer
Fertilizante de cesped

GUARANTEED ANALYSIS	F99
GUARANTEED ANALTSIS Total Nitrogen (N)	
0.00% Nitroden	
5.00%Ammoniscal Nitrogen	
11.00%	
0.00%	0.00%
Available Phosphate (P2Os)	8.00%
Soluble Potash (KrO)	1.00%
Total Magnesium as Mg	g
1.00%	12.00%
Sulphur (S) (Combined)	0.02%
Boron as B	6.00%
Chlorine, not more than	0.50%
Total Copper as Cu	3.009
Total Iron as Fe	1.009
Total Manganese as Mn	0.00059
Molybdenum as Mo	0.059
Molybdenum as Mo Total Zinc as Zn Derived trem: Sulphar Coated Uses, Sulpharis of Ammenia, Sulpharia of Potasis, Iron Celde, Sodam Berate, Cooper Odd Mariate of Potasis, Iron Celde, Sodam Berate, Cooper Odd	hote Potash Magner

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This product is sold as is, manufacturer make no warranties, express or implied. In no event shall manufacturer be held liable for special, indirect, incidental or consequential damages of any kind. Buyer assumes all risks of use, storage and handling of this product.

handling of this product.

Se vande este producto como es, el lobricante no hace ninguno garantio, expressodo implicado. En ningun acontecimiento e labricante sera sostenido obligado para los daños especiales indirectos, fortulas o consecuentes de la clase. El comprado especiales por la como producto de la como contra contra trades por la como contra contra trades por la contra contra

Directions For Use / Las direcciones Para el Uso
Do Not opply near water, storm drains or drainage disches. Do Not apply if hear
rain is expected. Apply this product only to your lown/garden, and sweep an
product that lands on the driveway, sidemently, or street, back onto you

n/garden. Comply with local ordinances.

aplique cenca de agua, desaguaderos de tormenta ni zanjas. No aplique si
acero recio e esperado. Aplique este producto solo a su césped/jardin, y
ra cvalquiet producto que ateriza en el camino de entrado, en la acero, o en la

habitished Lawras: Apoly the contents of this bag to 11,000 square test. plications should be made with rates recommended in the document fitled Best anagement Practices for Protection of Water Resources in Florida, June 2002, midd Green Industries. Copies may be obtained from

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a Céppedes establecidos: Aplique el conseisdo de este bolso a 11,000 pies oudiedos. Los aplicaciones deben ser hechos con taus recomendados en el comento tablo Mejores Práctica de Gestifica para la Protección del Recursos de Agra el Florida, junto 2002. Florida las Industrios Varidas. Las capitas pueden est extined de la priy / www. dep. seste Illus. / weuter / norsporte/ doscy/norspoint/ BMP\_Book.com

#### EDBEADER SETTINGS / AJUSTES del ESPARCIDOR

he suggested spreader setting below are approximate only. Age, condition of preader and walking speed can cause wide variation in application rates.

Calibrate your spreader with each application
 Avoid spilling on lawn when filling spreader.

Turn spreader off when stopping or turning.
 El esparacidor sugerido que fija abajo es aproximado solamente. Ervejezco condición del esparacidor y la velocidad que carnina puede causar la variación amplia en tarfas del uso.

Calibre su esparcidor con cada uso.

Evite de derramarse en céspedes al llenar el esparcio

#### Do Not Apply Near Water, Storm Drains or Drainage Ditches.

Appy mis production of street, back onto your lawn or garden.

An Aplique Cerca Agua, Resunidares de Tamenta ni Zanjas. Na Aplique si aguaceso recia es esperado. Aplique este producto sóto a usted pasto o jardin, y barra cudiques producto que esperado. Aplique este producto sóto a usted pasto o jardin, y barra cudiques producto que

	93/4	-	10	Yard Star 75450	4	
Yard Star 75350	93/4	-	10	Precision SB50P/50K22	71/2	2 - 8
Precision FH22	93/4	÷	10	Republic EZGrow 75450	4	
Republic EZ75350			53/4	Scotts Easygreen 745	27	- 27 1/4
Scotts Accugreen	51/4	•	5-/4	Scotts Speedygreen 740	43/	4 - 5



PO 8OX 8001 Sanford, Florida 32772-800 www.sunnilandcorp.com • 1 (800) 432-113



Nt. Wt. 50 lbs. (22.7 kg)

All fertilizer bag labels look different, but the information you need is there!

#### **How Do I Read a Fertilizer Label?**

The three numbers on a label tell you what percentage of nitrogen, phosphorus and potassium are in the bag:



- 1) The first number is always percent nitrogen (N)
- 2) The middle number is % phosphorus (P) (and in Orange County must always be ZERO\*)
- 3) The third number is % potassium (K)



\* If you have a soil test showing a deficiency, you may apply phosphorus in Orange County.

IFAS will help you arrange testing: (407) 254-9200

## Calculating if Nitrogen is 65% SRN

- Divide the % of slow-release nitrogen by the % total nitrogen.
- 2. Multiply by 100
- 3. If the answer is less than 65, it does not comply with our ordinance.

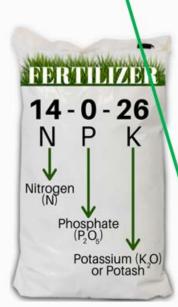
Slow-Release N %
Nitrogen N % x 100 = 65%

#### What To Look for On Your Fertilizer Label

% of Total N as Slow-Release Nitrogen (SRN)= 9.1 X 100= 65%

14

(Meets 65% SRN Orange County Requirement)



#### GUARANTEED ANALYSIS

TOTAL NITROGEN (N)14.00 %
14.45% Urea Nitrogen (N)*
SOLUBLE POTASH (K2O)26.00 %
SULFUR (S) Total19.70 %
10.50% Free Sulfur (S)
9.20% Combined Sulfur (S)
IRON (Fe) Total
0.19% Water Soluble Iron (Fe)
MANGANESE (Mn) Total0.48 %
0.1% Water Soluble Manganese (Mn)
DERIVED FROM: Polymer Coated Sulfur, Coated
Urea, Sulfate of Potash, Iron Oxide, Manganese

\*9.10% Slowly Available Urea Nitrogen from Polymer Coated Sulfur Coated Urea.

CHLORINE (CI) Max......2.00 %

Oxide.

## Does My Fertilizer Have 65% SRN?

- 1. Divide the % of slow-release nitrogen by the % total nitrogen.
- 2. Multiply by 100
- 3. If the answer is less than 65, it does not comply with our ordinance.

Slow-Release N %
Nitrogen N % x 100 = ? %

Now YOU try it!

Your fertilizer has 20% total N and 8% is slow-release type.

Does it comply with our ordinance?

(Answer is on the next slide)

## Does it comply with our ordinance?

- 1. Divide the % of slow-release nitrogen by the % total nitrogen.
- 2. Multiply by 100
- 3. If the answer is less than 65, it does not comply with our ordinance.

Slow-Release N %
Nitrogen N % x 100 = ? %

Your fertilizer has 20% total N and 8% is slow-release type N.

40% SRN is not allowed for use in Orange County

## **Course Goals**

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#### **How Much Fertilizer Should I Apply?**



Before you buy fertilizer, you must know these two things:

1. The size of your yard

Keep this info handy once you calculate it!

2. How to calculate the amount of nitrogen being applied

No more than 1 pound of nitrogen (N) per 1000 SF is allowed

## **How Big is My Yard?**

#### Step 1: Measure Length & Width:

Either pace off (or measure) the length of the area you want to fertilize, then do the same for the width. (Tip: 1 pace ~ 3 feet)

#### Step 2: Calculate the area:

Length X Width = Area (square feet to fertilize)

(Area of triangular spaces: ½ base X height)

Step 3: Call EPD if you have questions or need help: 407-836-1400



Tip: If your yard isn't square, you might need to measure several areas and add the values together

#### **How Much Fertilizer Should I Apply?**

Let's review a few items the Orange County Fertilizer Management Ordinance expects you to know before you apply fertilizer:

- The amount of slow-release nitrogen (N) is in your fertilizer (must be at least 65%)
- The total pounds of N in the bag of fertilizer you intend to use
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- The size of the area your bag of fertilizer should cover
- Whether the label application rates or County requirements result in your applying the least amount of N—always choose the one that applies less N\*

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#### **Calculating How Much You Can Legally Apply**

#### **Example:**

A 50 lb bag labeled **16-0-8** has 8 lbs of Nitrogen  $(50 \times 0.16 = 8)$ .

8 pounds of nitrogen can cover up to 8,000 SF of landscape (1 lb N / 1,000 SF landscape)

SO. . . If your yard is only 5,000 SF, you must calculate how many pounds of 16-0-8 you can legally apply in Orange County:

 $(5,000 \text{ SF X 50 lbs}) \div 8,000 \text{ SF} = 31.25 \text{ pounds}$ 31.25 pounds is the maximum amount of this particular fertilizer you may apply to a 5,000 SF area to keep the nitrogen content below the regulated limit Fertilizer

16 - 0 - 8

50 pounds

## **Calculating How Much to Use**

#### **IMPORTANT!**

Orange County allows up to 1 pound of nitrogen (N) to be applied on every 1,000 square feet of landscape, but prefers people use as little as possible.

If your fertilizer bag says to apply less N than the amount you calculated, FOLLOW THE LABEL INSTRUCTIONS so you apply less nitrogen.

Applying LESS nitrogen is always better for our water quality.





Established Lawns: Apply the contents of this bag to 11,000 square feet. Applications should be made with rates recommended in the document titled Best Management Practices for Protection of Water Resources in Florida, June 2002, Florida Green Industries. Copies may be obtained from http://www.dep.state.fl.us./water/nonpoint/docs/nonpoint/BMP\_Book.com Make no more than 2 applications per year.

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# Correctly Choose, Calibrate and Use a Fertilizer Spreader

There are three main types of mechanical fertilizer spreaders:

- Handheld
- Broadcast type\*
- Drop type





\* If you choose a broadcast spreader, it MUST have a deflector shield to comply with Orange County's ordinance





# Correctly Choose, Calibrate and Use a Fertilizer Spreader



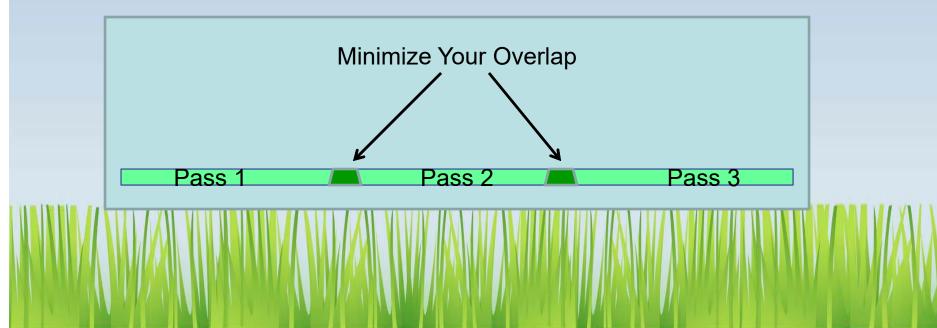
- Each spreader will have a dial or lever that sets the spreader's application rate
- Read the fertilizer bag to determine which number to set on the spreader



Yard Star 75350	93/4 - 10	Yard Star 75450	4
Precision FH22	9 - 10	Precision SB50P/50K22	71/2 - 8
Republic EZ75350	93/4 - 10	Republic EZGrow 75450	4
Scotts Accugreen	51/4 - 53/4	Scotts Easygreen 745	27 - 27 1/4
ocolis Accognosii		Scotts Speedygreen 740	43/4 - 5

# Correctly Choose, Calibrate and Use a Fertilizer Spreader

- Know the spread pattern of your spreader
- Follow spreader operation instructions to stop applying fertilizer during turns
- Each pass should barely overlap the previous pass:



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#### What is a Fertilizer-free Zone?

A fertilizer-free zone is any place where you should not apply fertilizer. This includes the following:

- 15 feet from any water body or wetland
- Hard surfaces (such as pavement, concrete, paving stones, etc.)
- Storm drains and ditches

# Fertilizer-free Zones Near Water or Wetlands



Fertilizer MAY NOT be applied within 15 Feet of any lake, pond, stream, canal, or wetland.

# Fertilizer-free Zones Near Water or Wetlands

\_ow maintenance



 Low maintenance areas should be established <u>10 feet from the</u> normal high water elevation mark of a lake

 Fertilizer SHOULD NOT be applied in low maintenance areas

 Grass clippings should not be left in these areas

#### **Fertilizer-free Zones**

Your yard is a fertilizer-free zone if heavy rain is expected.

Check the weather forecast before you decide to fertilize!



- The rainy season is June 1<sup>st</sup> through September 30<sup>th</sup>.
   Plan your treatments carefully.
   Do not apply if heavy rain is expected.
- Fertilizer applied before a heavy rain event, tropical storm, or hurricane washes into streets and storm drains, causing water pollution

#### **Fertilizer-free Zones**

Every yard in Orange County is located in a watershed. Being careful with grass clippings, fertilizer, and pesticides will prevent contaminants from flowing into our lakes and rivers.

Always keep impervious surfaces such as the following free of pollutants:

- Concrete Areas
- Sidewalks
- Driveways
- Streets
- Storm Drains

(Using a deflector shield helps keep fertilizer off cement.)



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# Am I responsible for compliance by my lawn care professional?

✓ Absolutely, if they are working on your property

Here are some things you should do:

- Ensure the applicator's license is valid
- Make sure grass clippings are blown back onto your yard or collected for proper disposal, never blown into the street or storm drains
- Request landscape treatment only when necessary. If needed, sparingly use fertilizer with micronutrients or that contains slow release nitrogen and no phosphorus unless a soil test indicates deficiency







# Orange County Click on the Link to Take the Quiz and Become Citizen Certified

http://apps.ocfl.net/dept/CEsrvcs/epd/fertilizer\_form.asp