

## Climate Friendly Nurseries Project

### BEST MANAGEMENT PRACTICES .....

# Reduce Fertilizer Save Money

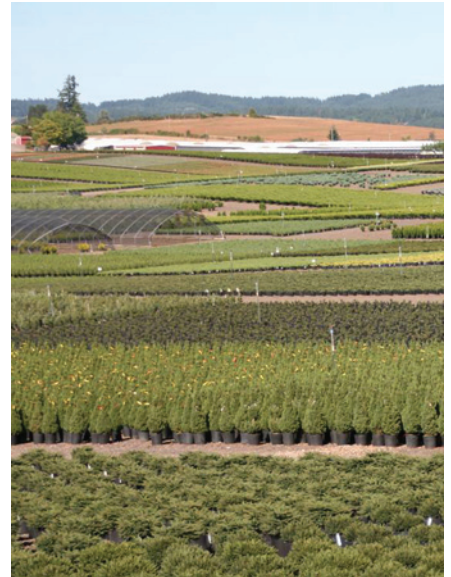
While improving water quality and soil productivity

#### Invest in EFFICIENT FERTILITY

Nutrient input costs have skyrocketed in the past few years. Use of nitrogen fertilizer is one of the most significant contributors to agricultural greenhouse gas emissions. Nurseries are challenged with producing the same high-quality products using fewer inputs. Using less means buying less and nurseries can realize significant savings by revisiting their nutrient management programs.

#### Have nutrient use efficiency projects in mind?

- Test soil or soilless substrate leachate for pH and nutrient content
- Accurately supply the amount and timing of nutrients required by individual crops
- Evaluate application methods to ensure fertilizer is applied to the root zone area
- Plant and incorporate cover crops to improve soil tilth and fertility
- Install water reuse systems to prevent waste and nutrient runoff and leaching and reuse nutrient inputs



#### Example of a grower who's done it

Bailey Nurseries has been able to save over 50% on fertility costs by putting a focus on nutrients. They switched from broadcasting to banding equipment to apply fertilizer at root zones. In addition, GPS is utilized and monitoring systems, including soil tests and check rows, help evaluate their program.

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## BEST MANAGEMENT PRACTICES .....

### Where do I start?

1. Understand your soil type and texture, pH, cation exchange capacity, organic matter and extractable nutrient content per field.
2. Test your soil and adapt management to results.  

For field production - take spring and fall soil samples at or near the same time each year so results can be compared. Fall testing can help determine if the total nitrogen supply from combined sources (irrigation water, soil and fertilizer) was excessive. Then, determine fertilizer needs for the following year.

For container production – use the Pour Through Extraction method to measure pH and electrical conductivity to determine efficiency of fertility program.  
[www.climatefriendlynurseries.org](http://www.climatefriendlynurseries.org)
3. Understand the amount and timing of nutrients required by individual crops. Apply nitrogen during times of growth when nutrient uptake occurs readily.
4. Apply nitrogen in split applications via band, side dress or fertigation to the root zone during times of growth.
5. Nitrogen application rates should be reduced proportionally from an acre basis to a smaller application area when banding, side dressing or fertigating.
6. Develop a nutrient management plan in partnership with your local Soil and Water Conservation District or Natural Resources Conservation Service (NRCS) and understand any available financial incentives for related projects.  
<http://www.oacd.org/map.shtml>  
<http://www.or.nrcs.usda.gov>
7. Talk to someone who's done it. See case studies at [www.climatefriendlynurseries.org](http://www.climatefriendlynurseries.org)

### Climate Friendly Nurseries Project

The Climate Friendly Nurseries Project, a collaborative partnership between the Oregon Association of Nurseries and the Oregon Environmental Council, has developed a guide, Best Management Practices for Climate Friendly Nurseries, to help nurseries reduce operating costs and greenhouse gas emissions. The BMP Guide contains detailed recommendations, Oregon case studies, and low and no-cost efficiency improvements for nurseries.

Learn more at [www.climatefriendlynurseries.org](http://www.climatefriendlynurseries.org)

