Dear Extension Friends,

We would like to know if this newsletter is meeting its goals by hearing from our readers. Please consider taking a few minutes to complete our survey and provide feedback. To show our appreciation for your time, we will hold a drawing for a gift basket and will use your comments to write articles on new topics of interest to you. Thank you so much for being a supporter of Baker County Extension programs!

Sincerely,

Alicia Lamborn
County Director / Horticulture Agent

In honor of Farm City Week, the Baker County Extension Office and Baker County Farm Bureau are collecting non-perishable food items for families in need.

Canned yams
Stuffing
Gravy
Green Beans
Cream of Mushroom Soup

Fried Onions
Macaroni and Cheese
Corn Bread Mix
Canned Pie Filling
Graham Cracker Crust

Drop-Off Locations:
Baker County Extension Office- 1025 W Maccleenny Ave
Baker County Farm Bureau- 539 S 6th St.
Please drop off items by Friday, November 15
November Gardening Tips

Flowers
• Prepare flower beds by adding 2-3 inches of organic matter such as compost to the soil surface. Next sprinkle a controlled-release fertilizer at the rate indicated on the label and thoroughly mix it into the top 6 inches of soil. Organic matter helps the soil retain moisture and controlled-release fertilizer provides a continuous nutrient supply over an extended time span (e.g., 3–4 months).

Trees & Shrubs
• Rake falling leaves and pine straw to use as mulch in the garden. Mulch should be 2-3 inches thick after settling. Avoid piling the mulch directly at the base of trees and shrubs and never apply mulch in a volcano-like fashion which contributes to trunk rot and can even repel water.

Lawns
• Spot treat weeds while they are still young to avoid a larger problem later. Bring samples to the Extension Office for identification and we can offer suggestions for the best management strategies for your lawn type and situation.

Landscape Irrigation
• Turn your irrigation clock to manual starting this month and let your plants tell you when it’s time to water. Growth is slowed during the cooler months and plants generally require less water. For landscape plants, wait until they show the first signs of wilting. For lawns, only water when leaf blades get that blue-gray color or start folding in half lengthwise. Of course, once your lawn goes dormant, it won’t need much, if any, supplemental irrigation.

Moss Problems?
• As the leaves begin to drop this time of year, many of us start to notice what may appear to be problems on our trees. Spanish moss, ball moss, and lichen are all commonly mistaken to be harmful in some way, although these organisms seldom need any attention at all. They do not kill or rob the trees of nutrients; they only need a place to live.

Cold Weather Prep
• Look for tree wraps this month, which are usually available during fall at gardening supply stores. Tree wraps protect young, thin-bark trees and graft unions from winter cracking and damage. Foam pipe insulation can also be used and is often preferred for citrus grafts. Remove wraps in early spring before the buds swell to avoid inhibiting growth.

Did You Know? Reducing irrigation during the winter (November—March) by watering once every other week saves about 8,259 gallons per 1,000 square feet. For a 5,000 square foot lawn, that equates to over 41,000 gallons of water saved!
REMINDER—"THANK YOU” LETTERS DUE THIS MONTH!

Letters and cards should go to those who purchased your animal AND to those who contributed add-ons. Unsealed, Addressed, & Self Addressed thank you letters are due to the Extension Office by:

- **November 22, 2019**, OR exhibitor will forfeit $50 of check amount
- **January 7, 2020**, OR exhibitor will forfeit $100 of check amount
- **January 31, 2020**, OR exhibitor will forfeit $200 of check amount

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**4-H HOLIDAY PARTY FUN WHILE SERVING A GREAT CAUSE**

The holiday season is upon us! Let's use this time to gather with friends and family and have a great time at the 4-H Holiday PIZZA Party and Scavenger Hunt!

**4-H Holiday Party**
When: Tuesday, November 12th
Time: 6pm
Where: Heritage Park
RSVP: To Your 4-H Club Leader by Friday, November 8th

**What to Bring?**
- Each family should bring a dessert for everyone to enjoy!
- Please bring a canned good for donation to families in need and earn Clover Points.

See donation ideas on front page of newsletter for Thanksgiving baskets!

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**WHAT IS A 4-H PROJECT?**

1. **Education**— At least 6 hours of learning
2. **Exhibit**— Show off your project
3. **Demonstration**— Tell and teach others about your project
4. **Record Book**— Keep track of your activities
5. **Service**— Use your abilities to give back to others
6. **Leadership**— Grow into leading others

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**4-H Club Meetings & Events**

- **Cloverleaf Cloggers**— Every Thursday, from 6-8pm at the Sanderson Community Center. Holiday party on Nov 12th. See details above.
- **County Council**— Will resume in February.
- **Livestock Club**— Holiday party on Nov 12th. See details above.
Something to Squawk About

DID YOU KNOW 100% OF THE POULTRY MEAT SOLD IN THE US IS ADDED HORMONE AND ANTIBIOTIC FREE?

IT IS ILLEGAL TO USE HORMONES IN POULTRY PRODUCTION IN THE UNITED STATES, THEREFORE ALL POULTRY MEAT IS FREE OF ADDED HORMONES!

ANY ANIMAL THAT IS GIVEN ANTIBIOTICS MUST GO THROUGH A WITHDRAW PERIOD, DURING WHICH ANY ANTIBIOTICS ARE PROCESSED THROUGH THEIR BODY AND NO RESIDUE IS LEFT IN THE MEAT.

DID YOU KNOW RAW POULTRY SHOULD NEVER BE WASHED BEFORE COOKING?

WASHING RAW MEAT CAN INCREASE THE RISK OF CONTAMINATING OTHER SURFACES WITH BACTERIA FROM THE MEAT, WHICH INCREASES YOUR RISK OF INFECTION. NEVER WASH RAW MEAT BEFORE COOKING.

ALL POULTRY SHOULD BE COOKED TO PROPER TEMPERATURES BEFORE SERVING.

ALL POULTRY PRODUCTS, INCLUDING GROUND CHICKEN OR TURKEY, SHOULD BE COOKED THOROUGHLY TO 165°F, AND SERVED IMMEDIATELY.

THE MOST EFFECTIVE MEANS TO PREVENT FOODBORNE ILLNESS IS PROPER HANDLING (SEGREGATION OF CUTTING BOARDS AND PREPARATION SURFACES, WASHING HANDS) AND PROPER COOKING PROCEDURES (165°F FOR POULTRY)
A topic frequently discussed by home gardeners and professionals is the use of soap products to control plant pests. Limited and conflicting information on this topic has resulted in confusion and misuse of products. This document describes some of the different types of soaps and recommendations for proper, legal, and safe use of these products to manage pests.

**All Soaps Are Not the Same**

**Insecticidal Soaps**

Insecticidal soaps are formulated specifically to control insect and mite pests. They are intended to be relatively safe for plants when following the label instructions. Insecticidal soaps are affordable and effective against many soft-bodied pests such as aphids, soft scales, psyllids, whiteflies, mealybugs, thrips, and spider mites. For these common pests, just two applications 5–7 days apart are often enough to greatly reduce their population. Like horticultural oils, insecticidal soap sprays must directly contact the pests to be effective. Residues that remain on plants after drying have no insecticidal effect.

Insecticidal soap products typically contain potassium salts of fatty acids. The fatty acids are naturally found in fats and oils of animals (e.g., lard, fish oil) and plants (e.g., cottonseed, olive, palm, coconut oils). Most modern soaps are produced using sodium hydroxide, a very efficient modern lye. However, insecticidal soaps are made by saponification with potassium hydroxide, a traditional lye. While soaps produced by either process will kill soft-bodied organisms, the sodium found in modern soaps is toxic to plants, and excessive use can leave a damaging amount of sodium ions (negatively charged molecules that can dry out plant tissue) on the plant surface.

**Dish Soaps**

Unlike insecticidal soaps, dish soaps are not designed for pest control purposes or for use on plants. There are several common misperceptions about dish soaps that contribute to their misuse in the landscape. We attempt to clarify those misperceptions below:

**Is dish soap/detergent a natural or organic alternative to pesticides?** Most dish soap products are not true soaps, but powerful surfactants called detergents. These products consist of synthetically produced detergents and other chemicals designed to strip grease and oily residue off cookware and other surfaces. These soaps work extremely well for cleaning and sanitation purposes. Directions for proper use can be found on a product label and the safety data sheet (SDS). If the company does not include uses on garden plants or as a pesticide then the product should not and may not be used as such. Dish detergents (e.g., Dawn®, Joy®, Palmolive®) are not an organic alternative to pesticides and are not appropriate for pest control in organic or conventional gardening.

**Is dish detergent a safe way to kill pests without harming beneficial organisms?** Detergents can kill many pests. However, they do not discriminate between harmful, helpful, or harmless organisms. Detergents can damage many soft-bodied insects and mites, both good and bad. They also frequently contain antimicrobial ingredients and can severely disrupt microorganisms (including beneficial insect-parasitic fungi) contacted by the detergent.

**Is dish detergent harmless to plants?** The powerful oil-stripping properties of detergents and concentrated soaps are believed to severely disrupt the delicate layer of wax on the surfaces of plant leaves and fruits. Similar in function to our skin, a plant’s waxy cuticle is the primary mechanical defense against microbial, viral, and fungal invasion. The waxy cuticle also acts as a barrier against water and solute loss. If a plant loses this protective layer, it will lose more water by transpiration, and its foliage will dry out. Plants adapted to drought, low humidity, and strong sunlight (such as succulents) typically have a much thicker waxy cuticle layer to help protect against water loss and may be more susceptible than other types of plants to detergent damage.
Managing Plant Pests with Soaps
continued from page 5...

All About the Rate
Any soap (even true insecticidal soaps) can cause leaf burn and injury to plants (called phytotoxicity) and can be harmful to beneficial insects if used incorrectly. Inconsistency in the application rate, or amount of soap per volume of water, causes many of the problems associated with using dish detergents and other soap products as pesticides. Recipes from gardening websites or homemade mixes can vary widely, from 1 tsp/quart to ¼ cup/quart, and often include other potentially phytotoxic ingredients, such as vinegar and alcohols. These recipes fail to consider the type of soap and safe application rates, environmental cautions, target pest type, and sensitivity of the plants.

Properly registered insecticidal soap products usually recommend an application rate between 1% to 2% soap per volume of water to minimize plant damage while effectively controlling soft-bodied insect and mite pests. Not only does a registered product label provide consistent rate recommendations, but it also clearly states which species and cultivars of plants may be sensitive and should not be sprayed.

It is also important to know when not to use insecticidal soaps for abiotic (environmental) reasons. Plants should never be treated with soaps if they are already under stress from drought or excessive humidity or when temperatures exceed 90°F. A helpful practice to reduce risk of plant damage is to always test the soap product on a few leaves before treating the entire plant.

Suggested Guidelines for Use
Because detergents and other household soaps are neither designed nor labeled for use on plants or as pest control products, their use as a makeshift pesticide is not recommended. However, they can still be useful for other indoor and outdoor purposes.

Conclusion
Insecticidal soap products are chemically similar to other household soaps but are designed for pest control on plants. While other soaps found in the home may also kill soft-bodied insects and mites, they are often not as effective and pose greater risk of injury to the plant and environment. Dish soap products, designed to remove tough grease and oils, may be particularly damaging to a plant’s waxy cuticle because they contain synthetic detergents and other potentially phytotoxic chemicals. If your dish detergents, other household soaps, and assorted household chemicals are neither designed nor labeled for use on plants or in pest control, we caution against and do not recommend their use as such.

To read the full article, including discussions on other soap products like castile and ivory, please visit: https://edis.ifas.ufl.edu/in1248

Local Master Gardeners Win Competition at Conference

Congratulations to Baker County Master Gardeners Debbie Clark, Cindy Jenkins, and Pat Collier who won 1st place in the centerpiece competition at the Florida Master Gardener Conference! They were presented with a rare and unique Moto Magnolia tree (Magnolia kwangtungensis) which will be planted in the Baker County Arboretum and Gardens.

Their beautiful centerpiece included bromeliads mounted on drift wood, surrounded by clumps of Mondo grass, African violets and an orchid and embellished with ground moss and Spanish moss.

The State Master Gardener Conference is a wonderful event held especially for our Master Gardener Volunteers. There are opportunities for education, inspiration, sharing of ideas, seeing friends and making new ones. Plus we honor special Master Gardener volunteers for their years of service and Awards of Excellence.

This year, our very own Pat Collier was presented with a 15-year service award for her service to Baker County! There are no words to express our gratitude for her dedication, service and friendship over these years! Congratulations Pat!