



Country Living

Provided to you by the
OSU Extension Service Columbia County
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The office will be closed Fridays from Noon to 1 p.m.
Website: <http://extension.oregonstate.edu/columbia/>

April 2015

Programs for you . . .

Listen to the Gardening Spot on KOHI (1600 am) radio - Every Saturday, 8:05 to 8:15 a.m.

- Apr. 2..... Demonstration Garden and other MG Extension Projects Planning Meeting. 3:15 p.m., OSU Extension Classroom, St. Helens
- Apr. 2..... Master Gardener™ Board Meeting. 3:45 p.m., OSU Extension Classroom, St. Helens
- Apr. 4..... Nob Hill Nature Park Volunteer work party. 1-4 p.m., pre-registration requested 503-397-7904
- Apr. 7..... Scappoose Bay Watershed Council. 7 p.m., Scappoose Bay Watershed Council's office, Warren
- Apr. 11..... 10th Annual 2015 Small Acreage Expo. 8:30 am to 3:30 pm, Vancouver WA \$15 fee w/lunch. Register at smallacreageexpo.brownpapertickets.com - view session topics at www.facebook.com/smallacreageprogram
- Apr. 14..... Lower Columbia Watershed Council. 7 p.m., SWCD office-35285 Millard Rd., St. Helens
- Apr. 15..... Soil & Water Conservation District. 7:30 p.m., SWCD office-35285 Millard Rd., St. Helens
- Apr. 23..... Master Gardener™ Chapter Meeting. 6:30 p.m. Speaker will be Ann Detweiler on Hardy Fuchias," OSU Extension Classroom, St. Helens. **The public is invited. Free.**
- Apr. 23..... Upper Nehalem Watershed Council. 7 p.m., Vernonia Grange, <http://nehalem.org/> 503-429-0869
- Apr. 25..... 20th Annual Spring Garden Fair, by Columbia County Master Gardeners™. 9 a.m. to 3 p.m. St. Helens High School. Over 5,000 tomato plants from 30 varieties at \$1.50 a plant.
- May 9.. 2015 Fair and Plant Sale, 9 a.m. to 3 pm., Vernonia School



Chip Bubl

Chip Bubl, OSU Extension Faculty, Agriculture

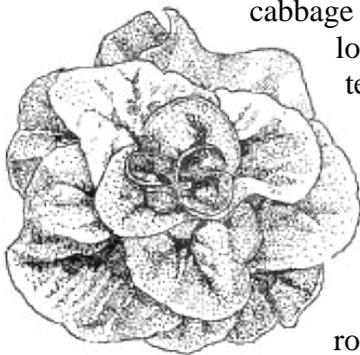


Agricultural Sciences & Natural Resources, Family and Community Health, 4-H Youth, Forestry & Natural Resources, and Extension Sea Grant programs. Oregon State University, United States Department of Agriculture, and Columbia County cooperating. The Extension Service offers its programs and materials equally to all people.

In the garden

Soil temperature and seed germination

This has been a great year to a garden started early. Soils have warmed as they have drained of some of January's rain. But it isn't easy to maintain these temperatures. If our normal rain returns, soil temperatures will drop once again. So when are soils too cool for planting? It depends on the crop. Peas, spinach, chard, and some of the



cabbage family can stand lower soil temperatures (35-45 degrees). But that does not mean they like those temps. All will germinate faster, rot less, and grow better in warmer conditions. Corn averages 22 days to emerge at soil temperatures of 50°, 12 days at 59°, and 7 days at 68°.

Crop	Min. temp	Opt. range	Opt temp	Max temp
Beans	60°	60-85°	80°	95°
Cabbage	40	45-95	85	100
Carrot	40	45-85	80	95
Corn	50	60-95	95	105
Cucumber	60	60-95	95	105
Lettuce	35	40-80	75	85
Pea	40	40-75	75	85
Spinach	35	45-75	70	85
Squash	60	70-95	95	100

So what does that mean for the gardener? Raised beds, by themselves, increase soil temperatures by draining water faster and allowing the soil to heat up quicker. Covering worked soil with clear plastic for several days can heat soils. Following that

up with row covers after planting can maintain that heat. It is also fun to have a good soil thermometer to inform your decisions or at least, to test your assumptions.

Very high temperatures can kill seeds or, at minimum, send them into a dormant state. Research showed that few vegetables seeds survived temperatures above 113° for more than 24 hours. Seeds stored in a car that heats up may not germinate, they may germinate poorly, or the seedlings that start may be weak and/or otherwise abnormal.

Container vegetable topics

Peppers like warm roots. Given happy roots and otherwise normal care, they produce abundantly. So do eggplants and tomatoes. One way to improve root temperatures is to plant these vegetables in containers.

The planted containers should be placed where they get a decent amount of sun (8 hours or more is best) and where it is easy to water them (since containers may dry out more quickly than garden planted vegetables).

Another advantage is that if you have limited space in which to garden, putting these plants on patios or decks can add quite a bit to your total home vegetable production.

There are drawbacks, though, to containers. First, they need more attentive watering as noted above. On very hot afternoons, it may be wise to pull them back into shade to reduce the risk of sunburn.

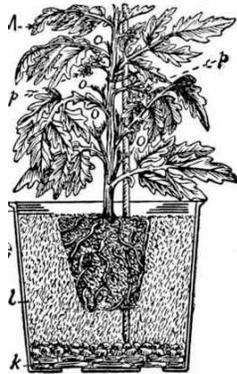
Second, some plants need to be staked and tied (peppers) or trained in a structure (tomatoes). Staking isn't too hard in containers but getting or building a stable and large enough tomato cage that won't topple over in a container is a challenge.

Third, soil straight from your garden doesn't work well in containers, at least as the only material in pots. Clay-rich soil has very small pore spaces and so it drains slowly which can lead to waterlogged roots that lack oxygen and poor growth. Most university publications advise against using garden soil.

But it is expensive to buy potting mix for containers. There is a minority opinion that says it is possible to mix good garden loam (with moderate to low clay) with other materials for vegetable containers. I have seen it done with good results. The containers are heavier (so they are less likely to blow over) and seem to be able to go between watering slightly longer. But I need to repeat, don't use heavy clay soils in the mix or it will get waterlogged.

Here are several soil mix recipes for containers that use garden soil. One calls for equal parts by volume of garden loam (your best soil), good compost, and perlite. Another uses equal parts of potting mix, good soil, compost, and perlite. With any of these mixes, you can add lime at about ¼ cup per four gallons of mix. Slow release organic or conventional fertilizers can also be added or the plants can be watered about every four days with a liquid fertilizer (organic or conventional) at about one-half strength.

Fourth, container shape and size influences how much water a container will hold and what is its potential for waterlogging. Two containers of equal volume, one that is 6 inches tall and wide and one that is 12 inches tall and narrow, drain differently. Both will have perched water at the same height from the bottom. But with the low container, 2" of water on the bottom represents 33% of its volume while the same two inches in the 12" container represents



about 16% of the volume. To prove this, take a six inch sponge and soak it, then first drain it on its side and measure the height that drains. Then soak again and drain it upright and it will drain to the same height.

Finally, if you use five-gallon buckets or other makeshift containers, drill holes in the bottom and about ½ inch along the side from the bottom to ensure decent drainage. Tomatoes and peppers need large, deep containers (at least 12 inches high and five gallons or more in volume) while lettuce can be planted in lower, wider containers of six-inches or so.

Will “hitched” motion detectors chase deer from your garden?

Motion detectors have been used to deter deer when linked to radios, lights, sprinklers, and a few other devices. Radios turned on by deer motion have been inconsistently effective. There is no accounting for their taste in music or talk. Lights have been very poor. The sprinklers with embedded motion detection work fairly well. Recently, I learned that the son of an MG I taught in Portland had paired a motion detector to a power supply that turned on a “bitless” drill placed in a bucket. That has worked....so far. Raccoons are also deterred (or not) by these same techniques.

Tent caterpillars emerging now

Columbia County had a tremendous infestation of western tent caterpillars last year, primarily within ten miles of Rainier. The adults dispersed widely. I have seen egg masses in Warren, St. Helens, Scappoose, and Chapman. They are emerging early this year. Local reports and some from the Portland area and Washington indicate the eggs have hatched and young caterpillars are active. Webs should appear soon. Consider treating your fruit trees as soon as blossoms disappear. You can use Btk, a bacterial insecticide, now without fear of bee injury.



That's the Way it Grows

Spring is Here

Blossoms abound everywhere. My fruit trees are busting out blooms, and I've already picked a few spears of asparagus, which means spring is here!

One of my favorite flowers has started to bloom. Each day in early spring, I pass by fields dusted with powder blue from the Camas bulbs in bloom. Great masses of



them carpet hillsides and other undisturbed areas. My son and I look for them every spring.

Camas is a native Oregon wildflower that is becoming more and more rare due to habitat loss. Native peoples used the starchy bulbs as a food staple.

It's a joy to see it in bloom each year and to find new patches of it. Over the last few years, I have seen a couple of tiny stands of camas die out because they were mown over.

A member of the lily family, it propagates by seed and bulb. They make a fair number seeds in seed heads that resemble those of the columbine. I have collected a handful of seed heads along the road for the last couple of years and have broadcast the seed in undisturbed areas of my property. It can take up to three years for Camas to bloom, and I definitely see foliage in those areas, so I can't wait to see if they bloom this year!

I want to try germinating some seeds in pots this year. Many native wildflower seeds require a cold period to initiate germination, but since I kept them in the shed over the winter, that may be good enough. I'm not sure how they will transplant, though.

Rushing Things

I did it again. I always jump the gun. I planted more strawberries a few weeks ago, and that very night, it froze. I hadn't cover

the bed. I know better. But I did it anyway.

I got all excited when the sun started peeking out again, and the lawn needed mowing. I'm sure I'm not the only one who runs outside and tries to start planting at the hint of sunny weather. At least I hope I'm not the only one.

Maybe it's not all bad, though. I get to pick out some new plants, and they might be nicer ones.

While I was out planting my doomed strawberries, I saw blossoms plumping up on my fruit trees. In the last month, the cherries, plums, pears and peach have burst forth with blooms. I want loads of peaches and pears again this year (okay, and cherries and plums), so I brought out a handful of my mason bee cocoons to emerge and start pollinating.

My bees are just so cute. They don't sting, as they are solitary and have no nest to defend.

Since they are pretty tired now, after using up stored fats over the winter, I have a few that need help emerging from their cocoons. With tiny scissors, cocoons can be carefully snipped open. The bees will crawl out onto my hand and plump up their wings. I put them in the bee house, next a cotton ball soaked in sugar solution to boost their energy. They take right off, looking for food. As they visit each blossom, they smear pollen all over themselves, and travel to the next flower, dropping pollen everywhere.

Blossoms are bursting, bees are pollinating—spring is here!



—Lisa M. Long

Columbia County Master Gardener™

Free gardening ebooks at:
Smashwords.com/profile/view/LisaMarieLong

APRIL

Garden hints from your OSU Extension Agent

Oregon State University Extension Service encourages sustainable gardening practices. Always identify and monitor problems before acting. First consider cultural controls; then physical, biological, and chemical controls (which include insecticidal soaps, horticultural oils, botanical insecticides, organic and synthetic pesticides). Always consider the least toxic approach first.

All recommendations in this calendar are not necessarily applicable to all areas of Oregon. For more information, contact your local office of the OSU Extension Service.



Planning

- Write in your garden journal throughout the growing season.
- Prepare garden soil for spring planting. Incorporate generous amounts of organic materials and amendments, using the results of a soil analysis as a guide.
- Prepare raised beds in areas where cold soils and poor drainage are a continuing problem. Incorporate generous amounts (at least 2") of organic materials.
- Use a soil thermometer to help you know when to plant vegetables. When the soil is consistently above 60°F, some warm season vegetables (beans, sweet corn) can be planted.

Maintenance and Clean Up

- Allow foliage of spring-flowering bulbs to brown and die down before removing.
- Apply commercial fertilizers, manure, or compost to cane, bush (gooseberries, currants, and blueberries), and trailing berries.
- Place compost or well decomposed manure around perennial vegetables, such as asparagus and rhubarb.
- Cut back ornamental grasses to a few inches above the ground, in early spring.
- Cover transplants to protect against late spring frosts.
- Optimum time to fertilize lawns. Apply 1 lb. nitrogen per 1,000 sq.ft. of lawn. Reduce risks of run-off into local waterways by not fertilizing just prior to rain, and not over-irrigating so that water runs off of lawn and onto sidewalk or street.
- Optimum time of year to dethatch and renovate lawns. If moss was a problem, scratch surface prior to seeding with perennial ryegrass.
- Prune and shape or thin spring-blooming shrubs and trees after blossoms fade.

Planting/Propagation

- Plant gladioli, hardy transplants of alyssum, phlox, and marigolds, if weather and soil conditions permit.
- It's a great time to start a vegetable garden. Among the vegetables you can plant, consider:
 Broccoli, Brussels sprouts, cabbage, carrots, cauliflower, chard, chives, endive, leeks, lettuce, peas, radishes, rhubarb, rutabagas, spinach, turnips.

Pest Monitoring and Management

- Clean up hiding places for slugs, sowbugs, and millipedes. Bait for slugs; iron phosphate baits are safe to use around pets.
- Monitor strawberries for spittlebugs and aphids; if present; wash off with water or use insecticidal soap as a contact spray. Follow label directions.
- If necessary, spray when flower buds appear for apple scab, cherry brown rot, and blossom blight. See EC 631, Controlling Diseases and Insects in Home Orchards
- Cut and remove weeds near the garden to remove potential sources of plant disease.
- Use floating row covers to keep insects such as beet leaf miners, cabbage maggot adult flies, and carrot rust flies away from susceptible crops.
- Help prevent damping off of seedlings by providing adequate ventilation.
- Manage weeds while they are small and actively growing with light cultivation or herbicides. Once the weed has gone to bud, herbicides are less effective.
- Spray stone fruits, such as cherries, plums, peaches, and apricots for brown rot blossom blight, if necessary.

Columbia County Master Gardener™ Association's
20th Annual

Spring Garden Fair

April 25, 2015

9:00 AM – 3:00 PM

St. Helens High School Commons

2375 Gable Road, St. Helens, Oregon

free parking - - please carpool
free admission - - ATM on-site - - shop indoors & out

Dozens of local vendors will offer annuals, trees, perennials, shrubs, trellises, garden art, vegetables, ceramics, herbs, containers, hanging baskets and more.



Certified Master Gardeners will offer 5,000 tomatoes in 30 varieties for only \$1.50 per plant, tomato and general gardening information, raffle tickets, hourly prizes and displays.

Raffle tickets are on sale now for \$1 each from many Master Gardeners and at the OSU Extension Service in St Helens.

*Visit our website: www.ColumbiaCountyMasterGardeners.org
Click on the *Chapter News* tab > *Photo Galleries* > *Spring Fair**



Presented in cooperation with
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(503)397-3462



The Grapevine
 News for Columbia County Master Gardeners™
www.columbiacountymastergardeners.org



APRIL 2015

Deadline for THE GRAPEVINE - All materials will need to be into the OSU Extension office no later than the 20th of each month.

President's Corner

Weather; so far it has been an amazingly mild winter. The early frosts of November/December have been forgotten. In the middle of February we were having days in the 60s; so amazing. In our yard at 1000 ft. which is at least 10 days behind the town, we have Magnolias, Camellias, Plums, Peaches and other flowering shrubs blooming. Even the Trillium are in bloom. St. Patty's Day and the first day of spring were almost the same day this year. I hope you enjoyed your St. Patty's Day and celebrated it.

Here is some food for thought, our CCMG website has stale articles. Our web master mentioned to me that there have been no new articles published on the web for quite some time. If anyone has gardening articles stewing in the back of their heads we would all enjoy reading them. If the items are newsy and not hard and true gardening facts, forward them to Larry Byrum and he will post them. If they are more on the scientific side they need to be sent to Chip Bubl for his approval before they hit the web.

By the time this is published, many of us will have participated in the Home and Garden Show at the fairgrounds. Thanks to those talented members who put on demonstrations.

Check out the calendar of events in this issue of the newsletter and on the web, things are getting a little busier.

The flower which is single need not envy the thorns that are numerous. -

Rabindranath Tagore

-- Wes Bevans

Calendar: At-A-Glance

- || Apr. 2.. Projects Planning meeting, 10 a.m., Extension office
- || Apr. 2.. Board Meeting, 10:30 a.m. Extension office
- || Apr. 6.. Demo Garden works begin on Mondays, 10 a.m. to Noon
- || Apr. 23. Chapter Meeting, 6:30 p.m., Speaker: Ann Detweiler on Hardy Fuchias, Ann is from Fry Road Nursery, she will be presenting information on the care, culture, and varieties of hardy fuchsias. Not to be confused with their tender hanging basket relatives. Hardy fuchsias are able to withstand our winter, and become permanent substantial contributors to the outdoor landscape. OSU Extension Service office.
- || Apr. 24 Spring Fair Set-up
- || Apr. 25 Spring Fair, St. Helens High School

Volunteer Payback

LOG YOUR HOURS, and turn them into Extension office. Hours worked by veteran as well as new Master Gardeners™ accumulate to justify continuance of our program through OSU.

To get a form off the web:

<http://extension.oregonstate.edu/columbia/master-gardener-volunteer-program> choose

Master Gardener™ Volunteer Log Sheet – word document or PDF.

Dues are Due!

Make your \$10 checks out to CCMGA or slip your cash into an envelope; turn it into the Extension Office or bring them to the next chapter meeting; or drop them in mail to Peggy Crisp, 34571 Millard Rd. Warren, OR 97053.

Remember your dues must be paid by the 31st of March to be include in the 2015 Roster

*--Peggy Crisp, treasurer;
 pegcrisp@gmail.com*



Calling All Master Gardeners

Raffle tickets are now available for the **Columbia County Master Gardener Annual Spring Fair** to be held April 25 at the St. Helens High School from 9:00 a.m. to 3:00 p.m. More than ever we need the support of all Master Gardeners to sell tickets. The contributions from the proceeds we receive from the Spring Fair raffle help us continue our educational programs. Tickets are available to sell or for purchase at the county extension office as well as the next Master Gardener meeting. Help make this year's fair the best ever. Your support is appreciated.

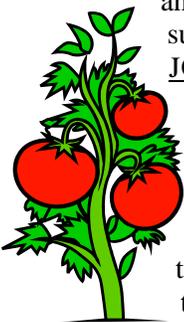
--Spring Fair Raffle Committee: *Debbie Broberg* at 503-366-7850

SPRING FAIR, APRIL 25th

The Columbia County Master Gardener's Association 20th annual fundraiser is *a mere few weeks away!*

There are about 32 varieties of tomatoes, Over 5000 tomatoes to be sold for \$1.50 each

It is with great pleasure that I THANK the COMMITTEE CHAIRS for their Extensive Hours and Tireless Efforts to make this event a success. They have done a GREAT JOB!



If you haven't had the opportunity and you would like to sign up to work at the Spring Fair - It's not too late.

All Volunteers who have signed up to work the morning hours are to report to the High School at 7 a.m. on April 25th. Mid-day Volunteers are to come at noon.

Please remember to wear your Master Gardener Badge and your Master Gardener T-shirt should you have one. Ladies, remember to leave your purses home.

From 6 a.m. on the April 25th until 9 a.m. we will be setting up the Spring Fair.

Doors to the Public will open at 9 a.m. and close at 3 p.m.

When the doors close at 3 p.m. Clean-up of the high school will begin.

All Committee Chairs will have prepared for each of the Volunteers a "TO DO" List that will

be handed out either at the business meeting on April 23rd or in the morning of Saturday, April 25th.

Any Volunteers who wish to help with the setup on Friday April 24 at the High School may show up at 3:15 pm and work until finished. Remember to keep track of the hours spent working the Spring Fair! This can be used as payback.

Have fun everyone, I and the Spring Committee Chairs will see you at the Spring Fair!

--*Katherine Johnson, Spring Fair Coordinator*

Save those boxes!

The Spring Fair Committee are asking you to do us a favor and start saving boxes for us to use at Spring Fair. Customers of Spring Fair last year truly appreciated having the boxes to use for all of their shopping enjoyment. Thank You, --*Spring Fair Committee*

Come to the 2015 Fair & Plant Sale in Vernonia on May 9th

The fair will be held at the Vernonia Schools Commons from 9 a.m. to 3 p.m. 800 certified organic tomato plants plus many other plants and vendor items available. --*Presented by the Vernonia Community Garden Group.*

Master Gardeners Contacts Officers for 2015

Title	Name
President.....	Wes Bevans
Vice President	Joe Crisp
Past President	Dennis Snyder
Secretary.....	Susan Snyder
Treasurer	Peg Crisp
Historian.....	Lavina Patterson
OMGA Rep	Chuck Petersen
OMGA Alt. Rep.	Deb Broberg
Demo Garden	Linda Bainbridge
.....	Mary Newell-Dickenson
Spring Fair.....	Kathy Johnson
CCMG website:	www.columbiacountymastergardeners.org
Webmaster	Larry Byrum
OSU Extension Service:	
Extension Faculty	Chip Bubl
Secretary.....	Vicki Krenz
Guide to Plant Disease Control:	
OSU.....	http://plant-disease.ipcc.orst.edu

The natural world

Insects, bats, and light

Many years ago, I read that the change from mercury vapor lights to sodium vapor lights had been associated with a precipitous decline in bat populations in German towns and cities. Research led to the conclusion that the mercury lights attracted and concentrated insects, increasing bats' feeding success. Well-fed bats led to more nesting near the grocery. Urban bat populations grew. They went away when sodium lights were installed.



I began to wonder what, if any role LED lighting might play in the bat, insect, light triangle. From what I can tell, they are highly attractive to insects. As they replace sodium lamps, it seems possible that bats may recover some of their territory. But there is also some concern that LED lights are too attractive to insects and may disrupt insect mating or even change migration patterns.

Over 40 years ago, one of the major lighting companies (GE or Phillips, I don't remember now) installed a huge bank of lights in an almond orchard in California. The intent was to flood the orchard with light. The almond moth measures night length to calibrate when the almonds will be ready for her caterpillars and thus, when to start mating. Like many day-length sensitive plants, an interruption in the night length resets this insect's biological clock. The scientists turned on the lights and the moths were deceived and didn't mate. There is a season for love and this, they decided, wasn't it. The project was designed to see if this was a practical way to control this pest. It wasn't; it cost way too much. But research on this topic remains interesting in light of our changing illuminated landscapes and potential impacts on many species.

Suggestions for a resilient landscape

Dr. Douglas Tallamy has been publishing research and several books over the last 20 years on the impact that personal landscapes can have on a variety of species (insects, birds, amphibians, etc.) in a time of climate change. He has many suggestions for improving the prospects of some species. Here are a few:

- ☐ First, strive for an insect rich environment. Insects are the ultimate recyclers and food for many of the higher species. He suggests we should plant native trees and shrubs that support lots of different insects. He notes that oaks are the heavy lifter in the insect world with many species capable of feeding over 300 species at various times and life stages. His work has been done on the east coast but I am hoping that more research on biodiversity through plants will be done here
- ☐ Provide water during the dry months. Water may decide which species can survive and which won't as the temperatures warm. Support the preservation of wet lands and the restoration of those that are degraded.
- ☐ Leave leaf litter in the fall. It both harbors some species and feeds others. It is also good for a resilient soil.
- ☐ Consider targeted block plantings for some of our keystone species like the monarch butterfly. There is a lot of interest in putting several Oregon native milkweeds. It isn't clear how successful it will be or if the monarchs will find them.
- ☐ Plant a fire resilient landscape that also conserves and supports the species of concern.



Farm and livestock notes

Drift season

Herbicides play an important role in farming and forestry. They reduce weed competition in many crops, ensuring better yields and lowering the cost of production per unit harvested. They are also valuable in maintaining road right-of-ways, landscapes, and managing invasive weed species.

Drift occurs when an herbicide moves off target. This can happen through several ways. The most common is applying an herbicide when it is too windy. Spring often gives us unsettled weather and winds above a safe range can develop quickly. Lowering the pressure of the spray application produces larger droplets that are less likely to physically drift. Often, this can be done without compromising the effectiveness of the application.

Another way an herbicide can move off target is by volatilizing. This process is most common with the ester formulations of phenoxy herbicides like triclopyr, 2,4-D, and a few others. The herbicide can be sprayed on the target weeds but then leave the leaf surfaces if temperatures rise to near 80° F even 6-8 hours after the spray was applied. The volatile herbicide clouds can move downwind for considerable distances (many miles, in some cases).

Since these products are very active on broadleaf plants in quite low concentrations, damage is often obvious in the days after the spray was applied. Grapes, tomatoes, and green beans show the injury symptoms readily. A mix of 2,4-D ester and triclopyr ester are sold as Crossbow™ and other generic formulations. These have caused significant issues when applied in the wrong temperature conditions.

The use of a less volatile product that will accomplish the same weed control result can

reduce your risk. So can lowering your application pressure. The bottom line is to make good herbicide choices, watch your sprayer pressure, study the weather forecasts and time your spray to optimize control of your weeds without injuring the crops of neighboring farmers or landowners.

Grass (forage) fed livestock market grows

Nationally, the demand for grass-fed livestock has been hot. Buyers are looking for forage/grass-fed steers and heifers to market. The market for grass fed milk and milk products like cheese, yogurt and ice cream is also increasing. Products like beef bone broth are feeling the grass-fed love. Even grass-fed leather is said to be stronger, more supple and durable. Hmmmm.....Maybe the buzz is getting a little out of hand. But it's out there and it's real, at least for now.

Getting ready for calving

- Cows should be in good condition. Feed for calf growth and to get them ready for nursing their calf. There is no truth to the idea that good feeding leads to calving difficulties. Just the opposite. Low nutritional status leads to slower time to nursing for the calf which leads to "poor doing" calves and more calf deaths. Feed her what she needs.
- Consult your veterinarian about pre-calving vaccinations to boost colostrum immunity.
- If you feed twice daily at 11:30 am and again at 9:30 pm, more cows will calve between 7 am and 7 pm.
- Have frozen colostrum on hand and warm it slowly in warm (100-105 degree) water.
- Prepare your calving facilities in case of a problem.



Why pastures decline

1. **Overgrazing:** Grass has to have periods of rest to develop enough leafiness to capture sunlight. Contrary to popular opinion, very little of the grass plant comes from minerals in the ground. If you took a load of hay (10-14% moisture) and burned it to ash, the ash weight is what came from the ground. Grass is mainly carbohydrates and that is what photosynthesis makes.

Whoever gets to the light, wins! Without enough leaf area to capture sunlight, you will have a declining root system and a declining crown and eventually a missing plant. Let grass grow to six inches several times a year. In

addition, letting livestock eat what they like best will ensure that, after a time, all that will be left are those plants they don't like.

2. **Undergrazing:** Ironically, pastures that are only hayed, particularly if they are hayed late (late June onwards), will tend to thin out as well. This is because grass evolved being grazed by animals. Grass needs periodic grazing followed by periods of rest. Hay fields should either be cut as close to the first of June as you can or grazed in mid-April for several weeks and then allowed to recover before haying.



3. **Little or no fertilizing:** Removing hay without adding nitrogen, phosphorus, potassium, magnesium, calcium and sulfur back will lead to pasture decline. Nitrogen can be supplied by a healthy stand of legumes like clover or lotus (trefoil) but the other minerals have to come from somewhere else. If you buy feed for your livestock, you are essentially importing fertilizer. Make sure you get their barn manure spread back on your fields.

4. **Grazing in the winter:** Besides removing leaves when the pasture needs to recover from fall grazing, winter grazing on our wet soils inevitably leads to soil compaction. Compacted soils are starved for oxygen and grass and legume pastures need good aeration. The best advice: Raise sheep, which don't tend to cause compaction, or don't have your animals on pasture from November through March. The English use deep-bedding systems to barn-feed cattle during their similar winters. Horse owners make well-drained exercise yards to allow activity without grazing.

If you have lots of acres (say 5 acres per cow or horse) that you are willing to use for winter grazing, you may get away with winter grazing (if you manage carefully). Additionally, some very well-drained soils are more resilient to hoof compaction. In the end, the quality of your grass in March will tell you how well you, as the manager of the grass of your realm, did. Grass that has been overgrazed will be very slow to respond to the longer and warmer days of spring.

Did you know? Our pastures produce 60% of the grass they will produce all year between April 1st and June 30th!

Joy Creek Nursery Seminars

We are fortunate to have such an exceptional nursery like Joy Creek in our county. They have an outstanding series of seminars most Sundays throughout the summer. You can visit their website www.joycreek.com for a complete list and description. The April seminars (which begin at 1:00 pm and are free unless otherwise indicated) are as follows: **April 5** - *Gravel -The Surprising Soil Amendment*, Mike Smith; **April 12** - *How To Shop For Plants*, Nadine Black & Andy Stockton; **April 19** - *Going Slightly Native*, Maurice Horn; **April 26** – *Rhododendrons*, Mike Stewart.



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