

High Country Conservation



2018

LARAMIE RIVERS CONSERVATION DISTRICT

Summer Edition

What's up at LRCD by Tony Hoch

Springtime (early summer for the rest of the country!) is very busy for folks in the Wyoming Conservation world, with only a small window to get a jump on summer.

Our annual tree sale this year was very successful, with great weather and very little inventory left over. The great weather extended itself so Martin could get his living snow fences planted within a week, and has begun working with producers on rangeland monitoring. Trish has been doing school programs and hustling to get all of her school garden projects prepared and planted, and Laura has been working with residents to reduce water and resource use in traditional bluegrass turf yards. Tony worked with the Department of Environmental Quality to get an approved sampling plan for a research grant with the Department of Agriculture on determining the sources of E. Coli bacteria in reaches of stream deemed impaired by DEQ. Sampling began in late May. Tony has also been working with the County Commissioners, state legislators and others to lay the groundwork for funding the Pilot Hill land purchase that would protect the Casper Aquifer and ensure that the area of open space between Laramie and the Pole Mountain unit of the Medicine Bow National forest remains open space.

Our Rural Cost Share program remains very popular for projects like wildlife friendly fencing (replacement fence) and solar stock pump systems for remote livestock grazing, as well as for river bank repair and water diversions. Also, new this summer – in order to speed up projects with our federal partner, the Natural Resources Conservation Service, LRCD will be contracting with private consultants to design NRCS projects, which are often held up because of a work backlog with NRCS engineers. We hope overcoming this "Technical Service Assistance" backlog will help make NRCS assistance more timely and practical for producers.

If you have any questions about any of the projects listed above please call us at 307-721-0072 or look us up at www.lrcd.net.



VISIT US ON THE WEB!

WWW.LRCD.NET

Regular Cost Share Program

Application at www.lrcd.net

50% or up to \$1000 contributed to
your qualifying project!

Living Snow Fences/Shelterbelts
Raised bed vegetable gardens
Education Efforts
Renewable Energy
Drip irrigation

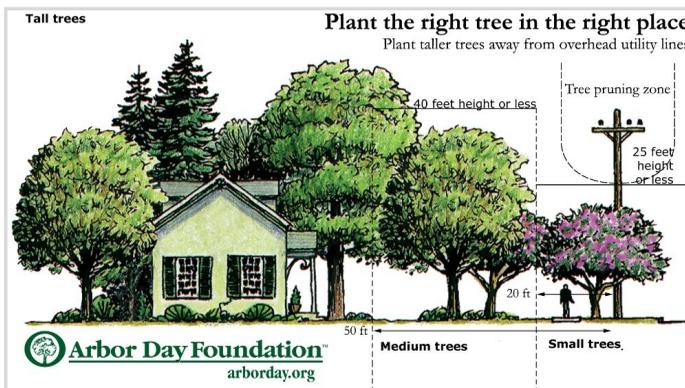


Helping our Urban Forest Grow by Laura McGinley

Over 130 million acres of America's forests are located urban areas. These urban forests include city parks, street trees, parkways, gardens, river and coastal walkways, greenbelts, wetlands, nature preserves, shelter belts, and trees planted industrial sites to help with clean-up. Urban forests are planned spaces that create the green infrastructure on which communities depend. They are a function and product of the people who live nearby and are responsible for their maintenance. They are a fundamental part of our communities and supply many health benefits while establishing a unique sense of space.

Beyond beautification, the benefits of the Urban Forest include:

- Reduced surface water runoff, which helps keep pollution out of the rivers and ponds.
- Reduced soil erosion, which decreases sedimentation of water bodies.
- Cleaner air as trees absorb pollution.
- Carbon capture - countering the greenhouse effect
- Reducing noise pollution.
- Providing habitat for urban wildlife.
- Increasing property values.
- Acting as wind barriers in winter and reducing heating bills.
- Cooling the city by absorbing sunlight and releasing water through evapotranspiration.
- Decreasing electrical use in the summer by cooling with shade or by providing shady space outdoors.



Creating and maintaining the urban forest, practicing forestry, is a role we all should see ourselves in. Whether it is planting and maintaining trees on private property, creating policies that help fund and maintain the tree canopy, or establishing green zones – we all have a part to play. The City of Laramie started as a nearly treeless place. In the early 1900's the community started planting the cottonwoods that created the distinguishing canopy of the tree-lined streets. Sadly, many of those trees have reached maturity and are disappearing. In order to maintain our urban forest and preserve a feature that Laramie residents say is a very important part of the community, the dead or dying trees have to be removed and planting replacements is a necessary mission.



When choosing trees, a larger tree may offer immediate visual change but they are more expensive and can take longer to adapt. Studies have shown that larger trees require a longer time than smaller trees to produce healthy root system. One Texas A&M study concluded that trees in #3gal., #5gal, and #7gal pots do the best and quickly catch up to trees in #45gal pots within just 3 years of transplanting.

There are a two programs available to homeowners that help cover cost of trees. The LRCD Regular Cost Share program will reimburse up to \$50 per tree or shrub and the City of Laramie offers the Shawver Tree Fund that assists with up to \$125 per tree. LRCD also has seedling trees available each spring at our Tree Sale in May. More information on these programs can be found at www.LRCD.net and www.cityoflaramie.org/665/Community-Forestry.

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Soil, Water, and Plant Analysis Cost Share Program

Potable Water * Trace Minerals in water
Irrigation and Livestock water * Forage testing for nutritional value
Soil testing for gardens for crops

The SW&P Analysis Cost Share is a matching program in which up to 50% of project costs may be reimbursed by the District up to \$500 total. Our knowledgeable staff can assist with understanding the different tests that are available, where testing labs are located, and how to read results.

Drip Irrigation Workshop

When: July 19th, 2018 from 5:30 PM to 7:30 PM
Where: Albany County Extension Office in Laramie, WY
(3520 South 3rd St. Suite A.)

Schedule of Topics:

- Why use drip irrigation?
- Different types of drip irrigation available for your property
- How to build your own drip irrigation system
- Maximize the benefits of drip irrigation by matching the irrigation to the needs of your plants
- Maintenance considerations

RSVP Albany County Extension Office
(307) 721-2571 by Tuesday July 17th, 2018

Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Glen Whipple, director, University of Wyoming Extension, University of Wyoming, Laramie, Wyoming 82071



Biological Primers to Improve Forage Productivity

by Roger Stockton/PhD. Crop Physiology and Production/WY NRCS State Conservation Agronomist

In many areas of the state we see long-term grazing units and hay meadows that have steadily declined in production over the years. Usually these areas have been planted to a single grass or maybe an alfalfa-grass mixture. This is contrary to Mother Nature who uses 50 to 200 different grasses, forbs and legumes to maximize the stability and productivity of her grazing land. This system worked very well until mankind got “smart enough” to start interfering. How do we “prime” soil biology?

There are 5 principles for priming low production forage units:

- Minimize soil disturbance, tillage, fertilizer and pesticides
- Keep living roots in the soil as many days of the year as possible
- Maximize plant species, crop rotation, multi-species cover crops
- Keep soil covered with residue and/or growing crop
- Integrate livestock grazing where ever possible.

The benefits of multi-species cover crops or perennial forage species are many. There is no wasted space or energy; there are leaves growing at all levels of the plant canopy, absorbing maximum sunlight. There are roots growing at all levels of the root zone, using water and nutrients efficiently. Mycorrhizal fungi grow in the soil connecting plant roots to other plants to transport water and nutrients throughout the plant community. This results in about 1/3 more biomass with less water usage in the multi-species mix. Plants will leak 20 to 40% of their Carbohydrate production through the roots to attract microbes to mineralize organic nutrients into plant usable nutrients in very close proximity to the root. Penn State University research showed 31% greater forage yield from a 5 species mix compared to a 2 species mix over a 9 year study. The advantage continued even after some of the 5 species disappeared from the mix in later years.

When renewing a declining forage unit with cover crops before replanting perennials, use 8-12 species with 40% being legumes, 40% grasses and 20% brassicas and pollinator plants. Use the same guidelines for the perennial mixture as well. Producers with 5 or more years’ experience in this forage management mention they don’t have vet bills now because their cattle are eating healthy forage and don’t get sick.

For more information, contact your local conservation district or NRCS field office.

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LaVA Update by Tony Hoch

The Medicine Bow National Forest’s (MBNF) Landscape Area Vegetation Analysis (LaVA) Draft Environmental Statement (DEIS) should be out on Mid-June. There will be a 45 day public comment period ending in early August and public information meetings held in Mid-July in Laramie and Saratoga. LaVA is not a change in the Forest Plan adopted in 2003, but a way to implement many of the treatments already planned, including commercial timber harvest, thinning and prescribed burns. LRCD is a cooperating agency on the project because we would like to see the MBNF be proactive in forest management in light of the beetle kill epidemic that

ravaged the forest from 2007 to 2014. Through Global Information Systems (GIS) data on computers it is well known how areas in need of treatment line up with areas already proposed for treatment in the Forest Plan, and sensitive watersheds, critical wildlife habitat, and old growth areas that need to be protected. LRCD is particularly interested in treatments that will protect areas from wildfires and improve wildlife habitat like aspen stands. With fire suppression for the past 100 years and then the beetle kill, the forest is due for some good management. Other cooperating agencies include Wyoming Game and Fish, Wyoming State Forestry, and the Department of Environmental Quality. Information on the LaVA project can be found at: <https://www.fs.usda.gov/project/?project=51255&exp=overview>

**LARAMIE RIVERS
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LARAMIE, WY
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National Weather Service Monthly Precip (inches)

Laramie Regional Airport - Preliminary Data

Source: <http://www.weather.gov/climate/index.php?wfo=cys>

Month	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	0.05	0.31	0.14	0.38	0.16	0.15	0.68	0.12	0.31	1.09	0.15
February	0.16	0.04	0.30	0.49	0.95	0.42	0.51	0.67	0.12	0.29	0.12
March	0.26	0.06	0.50	0.40	trace	0.34	0.54	0.17	1.94	0.38	0.91
April	0.38	1.30	2.14	1.96	0.54	0.71	0.80	1.73	2.56	1.11	0.30
May	3.59	1.36	1.24	1.21	0.21	0.99	2.55	2.71	2.01	1.47	1.66
June	1.81	2.36	2.29	1.36	0.24	0.44	0.76	0.77	1.68	0.19	
July	0.58	2.30	0.78	1.17	1.48	1.89	3.32	2.39	0.40	1.35	
August	1.56	1.03	1.16	0.65	0.34	2.34	1.63	1.30	1.03	1.51	
September	1.19	0.90	0.06	0.89	0.47	3.05	2.07	0.34	0.77	0.99	
October	0.18	0.96	1.49	1.31	1.01	2.08	0.30	2.05	0.04	0.96	
November	0.24	0.38	1.46	0.41	0.16	0.46	0.54	0.42	0.73	0.77	
December	0.20	0.72	0.76	0.06	0.42	0.1	0.14	0.55	0.21	0.23	
Total:	10.20	11.72	12.32	10.29	5.98	12.97	13.84	13.22	11.80	10.34	3.14

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