

VIEWS FROM THE WATERSHED

Winter, 2019

P.O. Box 3247, Nogales, AZ 85621

Questions, contact Chris Postel, clerk.scnrcd@gmail.com

Chairman's Column by Stephen Williams

Fall is in the air. After a generally below average rainfall producing monsoon season, the surge of tropical moisture that passed through the Santa Cruz NRC D area in late September after the County Fair effectively doubled the amount of rainfall received for our area in one storm system. That storm kicked us from 3 inches in July and August up to 6 inches by the end of September. The green up that resulted is remarkable as well as much appreciated.

Please pay attention to the MANAGEMENT OF LIVESTOCK FOR SMALL ACREAGE GRAZING article by Jim Koweek in this issue. It addresses an important topic in the Mountain Empire area. With all the new homes being built in the area, the new owners more often than not bring their pet horses, mules and burros with them. No consideration is given to the animals' forage requirements on small (10-40 acre) parcels. Before you know it, the perennial grasses are heavily grazed with no opportunity for either deferment or rest. They cannot replenish their energy reserves with the heavy continuous grazing. Weedy species start to establish themselves as the plant community changes.

In 2009, the Santa Cruz NRC D contributed funding for the publication of RURAL LIVING IN SANTA CRUZ COUNTY, ARIZONA. A GUIDE TO RESOURCES AND REGULATIONS FOR COUNTRY LIVING. The chapter on horses advises:

"If you intend to pasture your animals, plan on at least 40 acres per head, with significant supplemental feeding. If you overgraze your land, it may take decades to recover. If you have less than 40 acres per head, plan to corral your stock on a small portion of your property unless you want the entire acreage to assume the appearance of a dust bowl. The growing season in Santa Cruz County usually does not start until after the monsoons (July) and stops at the first frost. If possible, corral your stock during this time to allow the perennial grasses to flower and set seed. Unless you have sufficient acreage, you will need to supplement with hay, preferably weed free."

INSIDE THIS ISSUE

Chairman's Column	1
News Briefs	2
NRCWAY Camp, July 15-19, 2019	3
Management of Livestock for Small Acreage Grazing	4
Management of Livestock (Continued from Page 4)	5
Feeding American Families Sign & Upcoming Events	6

Although this chapter in the Rural Living Guide references horses, it applies to cattle, mules and burros.

The Santa Cruz NRC D booth at the County Fair at the end of September received quite a number of visitors. Some of them signed up as District Cooperators. Aside from the school children, who were excited to receive our bags of animal erasures and pencils, the items most popular with the adults were the plant identification booklets and the True Check rain gauges. For those of you who have rain gauges be advised that the University of Arizona has a tool that exists specifically for helping with tracking accumulated precipitation at new and existing gauges. It is the myRAINge Log web application (<https://myraingelog.arizona.edu>). Give it a try. If you need assistance with the computer, I bet your children or grandchildren will come to your rescue.

The Santa Cruz NRC D is in the planning stages for a Water Rights workshop to be held at the Fairground in Sonoita on February 12, 2020. This will be in conjunction with the Arizona Land and Water Trust, which will provide the workshop introduction regarding land and water connectivity. The University of Arizona Natural Resources Users Law and Policy Center will introduce the basics of surface and groundwater law in Arizona, as well as the status of water adjudication. A panel will discuss land and water conservation experiences, and information will be provided regarding sources for funding range improvement projects. We hope to see you there.

We still have an open position on our Board, if you know of anyone who is interested in being on our Board, please have them contact me (602-820-0191, smw85611@gmail.com) or our Board Clerk, Chris Postel (clerk.scnrcd@gmail.com).

Chairman's Column (Continued from Page 1)

Our district meetings are held at noon on the fourth Wednesday of even numbered months, except December, in Patagonia at the Wild Horse Restaurant. Come join us for lunch and up to date agency news. The next scheduled three meetings are: February 26, 2020, April 22, 2020, and June 24, 2020.

Thank you for your interest in natural resource conservation and the Santa Cruz NRC.

Stephen Williams, Chairman

News Briefs

One Rock Dams

Jim Littlejohn, Habitat Chairman, Southern Arizona Quail Forever (SAQF) jsl1964@gmail.com

On April 29 and May 2, eleven volunteers from Southern Arizona Quail Forever [SAQF] helped Bill Schock build twelve One Rock Dams [ORD]. Using rocks from Bill's land, the volunteers stacked rocks in washed out areas to slow down excessive rain-water flows. This simple process of slowing down water accomplishes several good results: captures sediment, recruits vegetation, and gradually raises the bed level. ORDs are also passive water harvesting structures. The single layer of rock is an effective rock mulch that increases soil moisture, infiltration and plant growth. Bill had built several ORDs 8-9 years ago and has seen the good results---water stayed on his property longer---several areas were becoming flatter; therefore, growing more feed for his cattle. Troy Christensen from AZGFD helped move rocks the second day. He explained to all of us the beauty of the "Adopt-a-Ranch " program. There is no contract, and in this case, SAQF volunteered labor, so it couldn't have been more straight-forward.

Beginning Farmer and Rancher Workshops

Arizona's Natural Resource Conservation Districts and the Arizona Association of Conservation Districts are partnering with the University of Arizona and many others to conduct workshops and field days for beginning ranchers and farmers. Ranchers and farmers with less than 10 years of experience qualify for the program. Workshops will be held on: Nov 20, 2019 Douglas Cochise College and Jan 7, 2020, Florence Library & Community Center. For more info: <http://www.aacd1944.com/ua-beginning-farmer-and-rancher-program/>

Arizona Association of Conservation District Update

You told your Association what you wanted, so we went out and got the ball rolling!

We heard you say that you want the following:

- More funding - help finding private funding and donors for the Districts and Ed Centers
- District outreach/marketing - help letting the public know who you are & about the great work you do
- Administrative support - help with tracking and reporting
- Grant writing support - help writing District grants
- Training - support Districts by providing training and education for supervisors, cooperators, and producers
- Representation at the Legislature

To view the entire AACD Update, click on the following link:

<https://santacruznrzd.org/wp-content/uploads/2019/10/Update-2019-10-23-1.pdf>

**Natural Resources Conservation Workshop for Arizona Youth
James 4-H Camp at Mingus Springs, Mingus Mountain
July 15 - 19, 2019**



Dear Santa Cruz NRCDC,

Thank you again for your support of NRCWAY. The 2019 workshop was a success with 29 students and many staff members enjoying the outdoors while learning about Arizona's natural resources. The theme this year was forestry and rangelands. Students learned about forest health, silviculture, fire ecology, and how to measure the height and diameter for ponderosa pine trees. They also learned that 69% of Arizona is rangeland, used rangeland monitoring techniques, and collected, identified, pressed, and mounted plant samples. This year the group project centered on coming up with a marketing campaign for a grassroots movement to have Black Grama (*Bouteloua eriopoda*) selected by the state legislature as our state grass. As part of the project, students learned how the state legislature works and how bills are passed. Nine students signed up to continue working on the project throughout the year with the eventual goal of talking to state legislators about introducing a bill for the state grass.

Applying what they learned about forest health, the service project this year was thinning an area of camp between the upper and lower buildings of small diameter trees. Students sawed down shrubs and trees to thin the forested area, leaving healthier trees to grow with less competition.

I have enclosed a copy of the schedule for the week to give you an idea of what went on during our time at camp. We hope that you will help us in recruiting young people to attend NRCWAY in 2020. Again, our sincerest thanks for your support of this program.

Kim McReynolds
NRCWAY Workshop Director

Management of Livestock for Small Acreage Grazing

Livestock animals eat a lot. In the grasslands, around the Sonoita area, the conversion is about 42 acres of pasture needed for a cow per year and 75 – 120 acres per horse. Because of their teeth and digestive system, horses are much tougher on range land than are cattle. Supplemental feeding on smaller acreage is absolutely necessary but it is not a cure-all. While it does cut down on over all forage, it basically makes them poop more. They will still spend their time grazing on native forage. The question is how to keep livestock healthy and, at the same time, prevent land mismanagement. This is what some folks refer to as overgrazing.

“Overgrazing” is an overused and emotional term. To some folks, overgrazed land is anything that shows any sign of use. To others, it doesn’t even exist because “it all comes back with the summer rains”. Of course, the truth is somewhere in between. True overgrazing (I prefer the term mismanagement) occurs when the native plant community has been degraded by livestock to the point where it cannot recover, over time, on its own. This is the result of compaction, root and seed loss. The result will be erodible ground, weeds, and potentially invasive species taking over. The real question is how do we prevent this from happening?

Other than supplemental feeding, timing of grazing is the critical factor. Our native grasses are dormant for a long period of the year. Typically, this is from fall to spring. In spring, depending on the temperature and winter moisture, there may be a small amount of greening and growth. After spring grasses go dormant again with days of near triple digit temperatures double-digit winds, and single digit humidity. Dormant usage, within reason, does not lead to overgrazing. The real damage can occur during the summer growing and fall seeding seasons.

With the arrival (hopefully) of the summer rains grasses begin to grow. This growth period is important for two reasons. The full growth of its leaves allows the plants to take in enough resources to go to seed which ensures that further generations can grow. Also, it allows the individual grass plants to take in nutrients, which are stored in the roots to come back the next year. If these two factors don’t happen, the long-term survival of the grass plants is in doubt. Translated into more basic terms: **Graze VERY lightly or not at all once the seeding process has started.**

The Sacrificial Pasture

The question here is what to do with livestock when the late summer growth is happening. No answer is perfect but the best one for limited acreage is the creation of a small, sacrificial pasture. This area would be under ¼ acre and would be the main holding area of your livestock until the seed maturation process is complete on the native grasses. That would be marked by the grasses turning brown and the seeds coming off the heads easily by hand. Of course, this area would be very heavily grazed and compacted but it is better to sacrifice a small area than degrade multiple acres. Also consider the expense of restore a ¼ acre or less compared to a much larger section.

I realize that many folks after reading the last paragraph are probably thinking “my animals won’t get enough exercise in a small pasture. With the sacrificial pasture, it is OK to let them out for small amounts of time to graze. Just keep an eye out and err on the side of caution. Personally, I understand that my animals are my responsibility and if I couldn’t keep them exercised, I would consider getting rid of them and getting a goldfish or a hamster (with an exercise wheel) as a pet instead.

Weeds, Invasive Species, and “Native Grass Hay”

A couple of other problems go hand in hand with grazing mismanagement and contribute to land degradation. Weeds and invasive species top that list. Tumbleweed (AKA Russian Thistle *Salsola tragus*) and Pigweed (AKA Carelessweed *Amaranthus palmeri*) are very common

Management of Livestock for Small Acreage Grazing (Continued from Page 4)

in our area. Pigweed can especially be a problem as it can become very toxic and lethal to livestock when stressed. Both these species like disturbed ground so the best policy is to disturb as little as possible. Since both these species are annual (they complete their life cycles in one year) the best control for them is mowing. This need to be done before they go to seed to be effective. Plan on mowing for several years to be effective.

Unfortunately, dealing with invasive species is not as straight forward. The worst offenders in our area are Lehmann's Lovegrass (*Eragrostis lehmanniana*), Yellow Bluestem (*Bothriochloa ischaemum*), and Johnsongrass (*Sorghum halepense*). Invasive species will outcompete native vegetation and change the local ecosystems. Most are far less desirable for grazing purposes. Once established, are very difficult to eliminate in a large scale. The most effective treatment involves herbicides. Unfortunately, even if you spray and eliminate every visible invasive plant it won't solve the problem as there is a seed bank in the ground that can germinate in the future. Plan on some retreatment.

Part of my work involves monitoring vegetation trends locally. I have seen a tremendous increase in invasive species in recent years. Invasive species are a huge and costly problem. Anything that can be done to slow the spread is a good thing. There has also been an increase in the amount of so called "native grass hay" being cut and sold locally. I am not saying that this is responsible for the overall increase in invasives, it is not. However, several of the areas I have inspected, where this hay was being cut, have been full of invasive species, mainly Lehmann's Lovegrass and Yellow Bluestem.



Just because grass is growing in our area doesn't mean it is native. Using this hay or allowing it to be baled contributes to the spread of invasive species. Before anyone throws this hay out for feed, you should know exactly what is in it and where it came from.

Weeds, invasive species and erosion are all problems directly related to poor land management. The best and least expensive solutions to these issues is to avoid them before they get started. Remember folks, taking care of the land... it's not just for hippies anymore.

Jim Koweek,
Arizona Revegetation & Monitoring
Co.

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FEEDING AMERICAN FAMILIES SIGN

Would you like to proudly display the product of your livestock raising labor to feed American families? The Santa Cruz NRC is sponsoring the sign you see shown here.

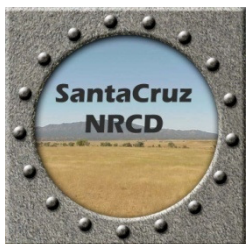
For information about placing an order for signs, custom made for your ranch please contact Stephen Williams at 602-820-0191 or smw85611@gmail.com

Mark Your Calendar

AACD Winter Meeting – January 28-29, 2020, Phoenix, AZ

Water Rights Workshop – February 12, 2020, Santa Cruz County Fairgrounds, Sonoita, AZ

Santa Cruz Regular Meeting – February 26, 2020, Wildhorse Restaurant, Patagonia, AZ



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