FAWCETT NOTES from the LWRA WATER and LAND STEWARDSHIP WORKSHOP Part 2

November 11, Junction, Coke Stevenson Memorial Center (60 participants) 9am - 12:30 pm

Second Speaker (of 3)

STEVE NELLE, Natural Resource Specialist/ Wildlife Biologist, retired NRCS

"Ranching for Water"

PRINCIPLES:

Lyndon B. Johnson: "... saving the water and soil starts with the first raindrop..."

Water comes from the land.... yes, water comes from rain, but THE KEY is how the land processes the rainwater! In other words, what happens when the water hits the land... does it soak in or run off? Water-catching versus Water-shedding. Other countries such as Africa and Australia don't even use the term, watershed; instead, they say water-catchment.

Key Principle: SLOW the movement of water as it flows downhill and do this as much as possible WITH VEGETATION. In contrast, bare ground has a crust that is somewhat water-resistant (not good for water capture).

R.E. Dickson, 1914: "Don't pray for rain if you can't take care of what you get."

Successful, sustainable livestock ranching says that only IF there is a SURPLUS of grass, then a PORTION of it can be grazed and this proportion of cows to acres of grass constantly changes. GENERALLY – ONLY 25% OF GRASS CAN GO TO CATTLE GRAZING with intermittent grazing of any one area.

Key Principle: "Leave more leaves to grow more roots to grow more leaves." (note: leaves = grass blades).

Grazing 25% of available grass maintains a GOOD ROOT SYSTEM, and rain can follow those blades (of grass) to the roots to the ground, plus the longer the roots

the deeper the water can travel. Grass grazed only 25% down will always have much longer roots and a denser root system than overgrazed grass.

"Leave more leaves to grow more roots to soak up more rain."

Key Principle: TREES ARE GOOD. More rainfall soaks into the ground UNDER TREES and SHRUBS. Also, tree root systems are more extensive — outward and depth-wise, providing passages for water to get deep down into the soil. Roots can also crack rocks for more drainage. A mere tree root hair will find the cracks in the rock and as the root grows, the cracks get wider and wider. Then gravity takes over.

BRUSH IS NOT THE ENEMY (for getting water into the ground).

RECAP: Is your stream water-shedding (floods and runoff)? Or is it a water-catchment river or creek, catching the water to soak into the ground? *The answer to this question almost always has to do with the nature and amount of vegetation along the waterway* – with the goal being dense, long-rooted vegetation ...

PRACTICES:

Management of grazing and browsing

Cows are bigger now than they used to be. A 1200 lb. cow eats 11,000 lbs. of forage/per year. When the grass leaves get down to about the height of a cowboy hat laying on the ground, move the cattle on.

Note: older grass flattened to the ground is still a good thing.

Another big problem is deer browsing, leading to stunted trees that will never grow. A deer eats 4 lbs/day (equivalent to two overflowing 5-gallon buckets), 1400 lbs/year. And axis eat more than white tail and eat everything. AXIS solution: Ruthless herd reduction.

CEDAR DOES NOT CAUSE GRASS TO NOT GROW. Cedar can be controlled, but don't eradicate. And when you do cut cedar (or mesquite, etc), leave the downed trees and branches in place, preferably in "wind rows" – you could terrace the slopes with these to slow the run of water downhill. Grasses will fill in between. Dead tree slash provides the

better grasses (or even young trees) protection while they are in their more delicate growth stages. Agarita shrub cover is also very good for this.

UNTRUE: Grass needs to be grazed to be healthy.

LAND STEWARDSHIP ETHICS

A recommended read: <u>A Sand County Almanac</u> by Aldo Leopold (1887-1948, considered by many to be the father of wildlife ecology and the U.S. wilderness system).

Cultivate a relationship to the land (itself, not just what it can produce) –deep respect and love, and therefore you will take care of it... "an ecological conscience," taking individual responsibility for the land. This attitude will limit one's freedom *voluntarily*. Rancher, hunter becomes caretaker, conservator, custodian – a person who has a *deeply* held inner conviction to care for and *sustain* the land entrusted to them. And not just as a benefit to themselves or family, but for society.

Land stewardship is not just a list of practices, but who you are inside and your inner relationship to the land. "Those who understand the land best, are those who want to conserve it."