DESERT FEEDLOT NEWS

May 13, 1997

COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA
IMPERIAL COUNTY

COMMODITY SHRINKAGE, IT MATTERS

Juan N. Guerrero
Area Livestock Advisor

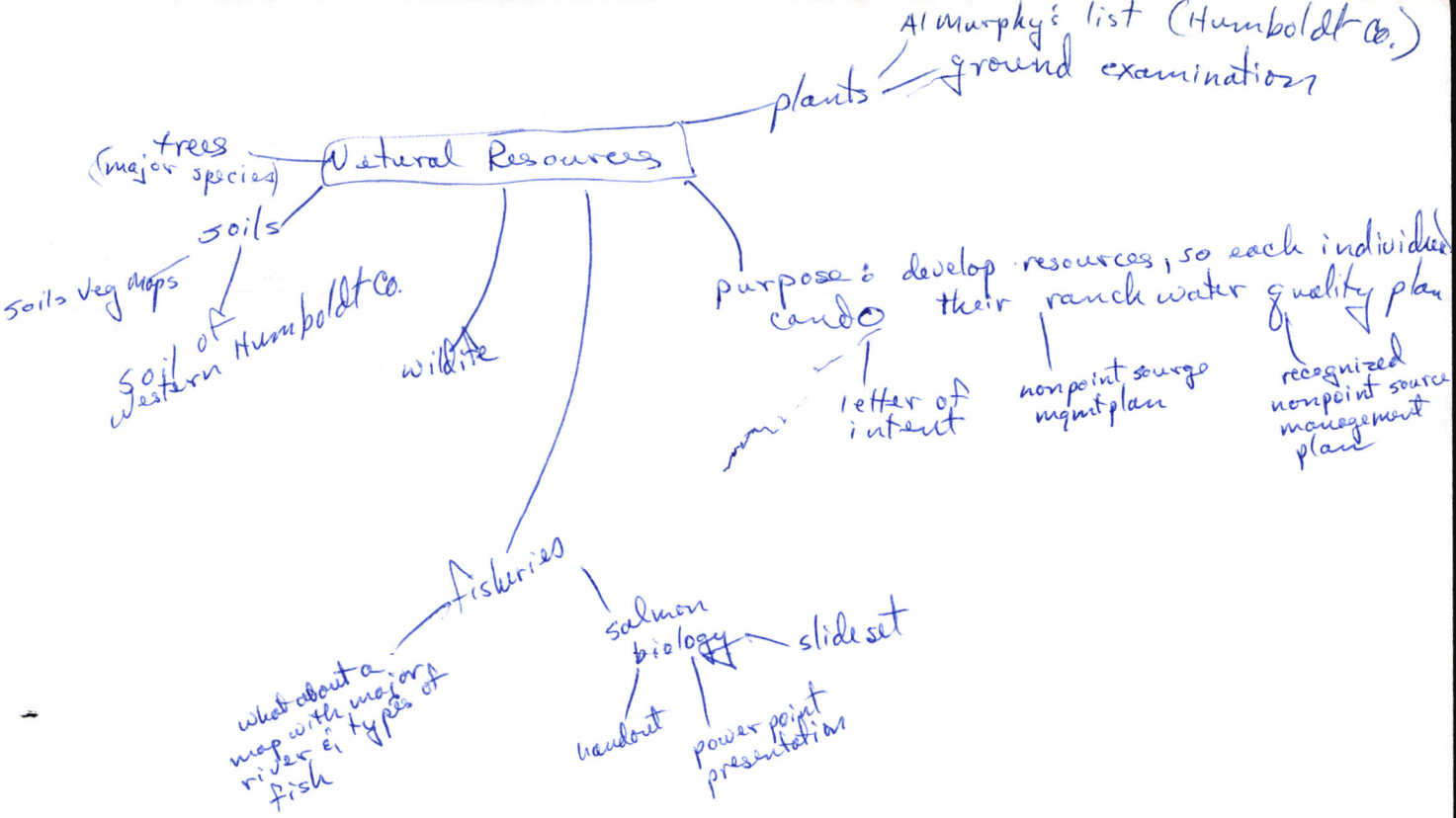
In 1993 I did an experiment where I baled alfalfa hay in May and evaluated the effect of four hay storage treatments on hay quality over a 20 week period. The experiment was done at the University of California Desert Research and Extension Center, near Holtville: on the CRIT Reservation south of Parker; and at the ag school of the Autonomous University of Baja California, about 50 miles southeast of Mexicali.

The alfalfa was a second year stand of CUF101, and at all three sites the hay was baled during the third week of May, 1993. The alfalfa hays were baled at about 17% moisture. At each site, the hay bales were randomly allocated to four storage treatments: an air conditioned room at 80° F constant temperature (**COOL**), outdoors under a roof (**SHADE**), outdoors protected by a plastic tarp (**TARP**), and outdoors unprotected (**SUN**). The gray plastic tarp was 6 mils thick and covered the entire stack. At each site each treatment had 40 to 60 bales. Until mid October 1993, weekly random hay samples were taken from each treatment. Climate data were recorded at each site. Weekly hay samples from each site were analyzed for crude protein, neutral detergent fiber, acid detergent fiber, ash, acid detergent insoluble nitrogen, lignin, and dry matter. At this time I will only report the drying rates of the hay. The effects of summer heat on protein quality will be reported at another time.

Figure 1 depicts the mean bale dry matter, not the moisture content, of the treatment hays over the 20 week storage period. Note that after just six weeks of storage the SUN hay had dried to 90% dry matter and by ten weeks of storage the SUN hay had dried to almost 95% dry matter. Dry hay becomes very brittle and when ground often results in "fines".

The SHADE hay did not dry to 90% dry matter until ten weeks of storage and by about 15 weeks of storage had dried to about 92% dry matter. Note that the TARP treatment did not dry down to 90% dry matter until about 18 weeks of storage.

1050 E. HOLTON ROAD HOLTVILLE, CA 92250-9615 (619) 352-9474


Al Murphy's list (Humboldt Co.)
ground examination
plants
trees
(major species)
Natural Resources
soils
soils veg maps
soil of western Humboldt Co.
wildlife
purpose: develop resources, so each individual
can do their ranch water quality plan
letter of intent
nonpoint source mgmt plan
recognized nonpoint source management plan
fisheries
what about a map with major river & types of fish
salmon biology
slide set
handout
power point presentation