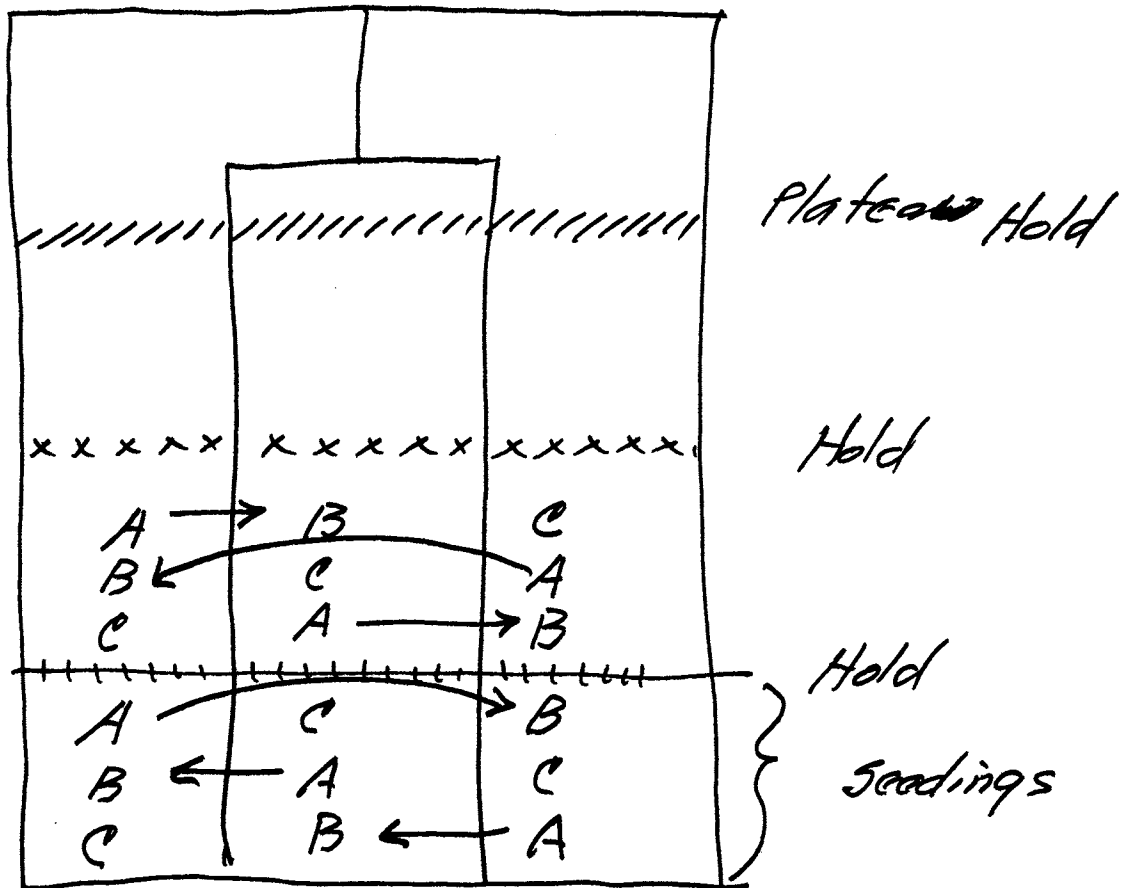


Savul

Aug 20 1981

Top



Present grazing

BLM 4-pasture RR?

F.S 2-pasture deferred (Alternate deferred)

# Saval Allotment Nevada

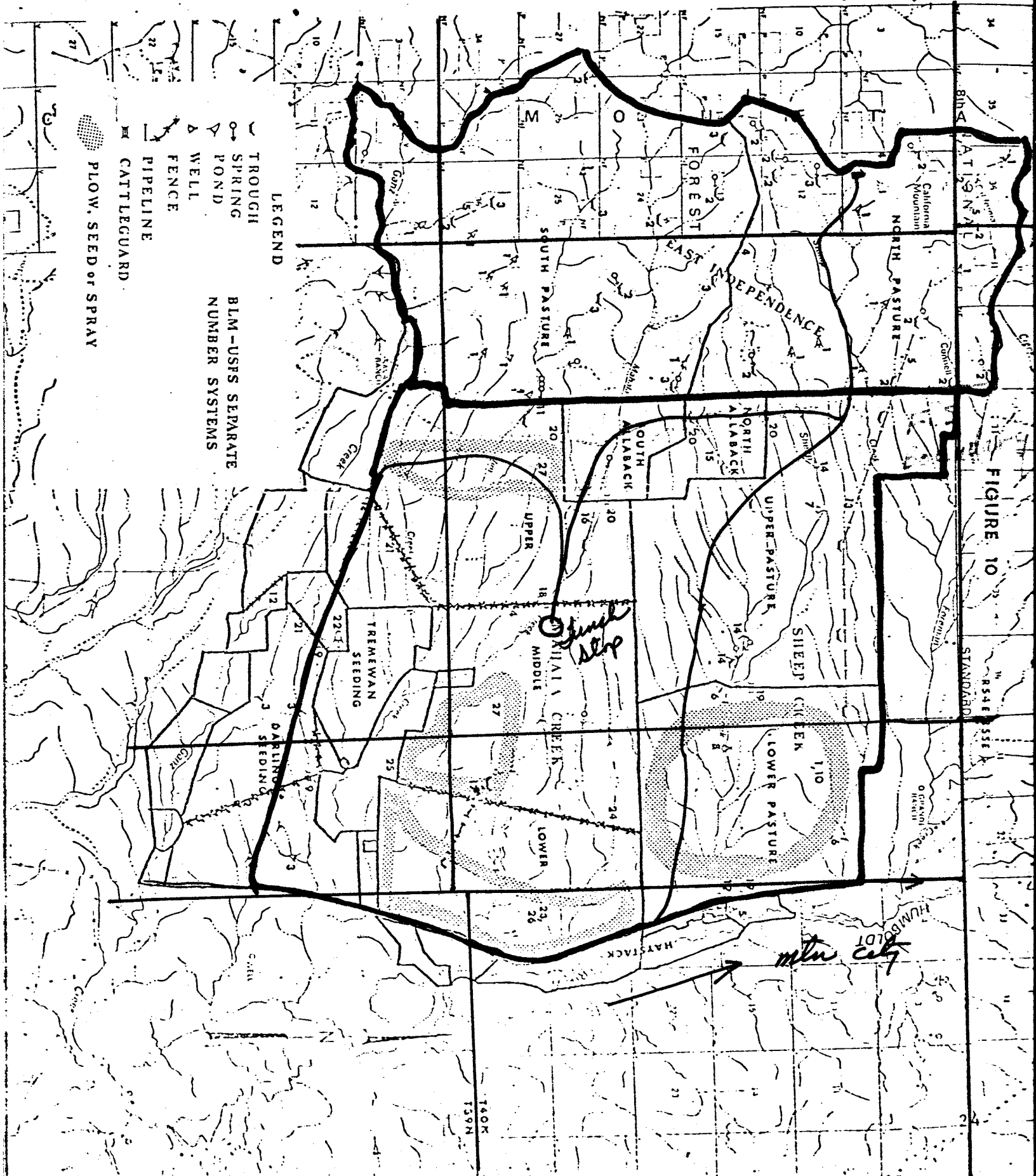


FIGURE 10

STANDARD

RS4E 55E

139N

140E

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# Agricultural Research



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Cover: This orange grove is part of Florida's \$2-billion-per-year citrus industry. Although many commercial citrus orchards there suffered severe damage during last January's Florida freeze, SEA researchers in Orlando have developed new cold-resistant hybrids that withstood the low temperatures with little damage. (Photo courtesy of Grant Heilman.)

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- 
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## Science on the Western Range



A Nevada ranch is the working laboratory for a long-term study that researchers expect will lay a new scientific base for grazing livestock on sagebrush lands in the West.

Researchers say the study's results may be applied directly to some 100 million acres of sagebrush lands in the 11 western states, and could offer insights into grazing practices on about 200 million acres of other western rangelands.

"We need to see the total picture of cattle grazing and find out what grazing practices are suited to the land—from both environmental and economic standpoints," says the principal investigator, Richard Eckert, Jr., a SEA range scientist located at Reno.

Eckert says that this is the first long-term study of its size to examine what happens to soil, vegetation, water resources, and wildlife where cattle graze sagebrush lands. Seven state and federal agencies and the Nevada Cattlemen's Association are cooperating in the study.

According to Jeanne Edwards, who volunteered her Saval Ranch near Eiko in northeastern Nevada for the study, rangeland throughout the West "will continue to face increasing pressures for use—for oil shale, coal, minerals, and lumber, and as a place for hikers and skiers. It is imperative that the sciences come into play in finding ways for rational land use."

Edwards has invited researchers to study her ranch of 59,000 acres and 1,200 head of breeding stock. The study

area comprises about 45,000 acres of leased federal land and about 14,000 acres that are privately owned.

Active in the Society for Range Management and the American Forestry Association, Edwards was named "Range Man of the Year" in 1979 by the Nevada Section of the Society for Range Management.

Eckert says it will be no surprise, in the study, to find cowboy and scientist riding the Saval range together. "We're not going to overlook the rancher's own conservation experiences that have paid off in protecting the land," he says.

Owner Edwards says that the resources of the range "can be managed to work together, not at cross purposes, but it will take credible scientific findings and some workable new ideas that ranchers can adapt to their own needs for an economically viable cattle operation."

As Eckert sees it, the study will "go a long way toward identifying how and where rangeland can reach its potential, in economic and environmental terms, for raising cattle as a food source."

David Secrist of North Fork, president of the Nevada Cattlemen's Association, says that new grazing patterns, uses of forage, and other range improvements may make it possible to increase—perhaps double—the meat production of beef herds in the years ahead.

"We are not looking for short-term answers to grazing problems," says Eckert. "The 10 or more years going into this study will take us through an interim period and one full grazing cycle of intensive management, giving us the broad research base that is needed."

Specific research phases of the study will begin on the ranch in the spring of 1981, according to Eckert. The first stage of the study—a 3-year inventory of the Saval's natural resources—was completed in 1980.

Multidisciplinary studies will be emphasized, and they will involve federal and state researchers from SEA, Forest Service (the Intermountain Forest and Humboldt National Forest), Soil

Conservation Service (all of USDA), the Bureau of Land Management and Geological Survey of the Department of Interior; the Nevada Department of Wildlife; and the College of Agriculture of the University of Nevada-Reno.

Scientists and ranch hands will study the trout and water in the streams, the native plants and trees, and the food and cover for mule deer, sage grouse, and other wildlife as carefully as they study the cattle on the ranch, Eckert says. As grazing practices are worked out, researchers will use monitoring systems precise enough to detect changes in the land's resources.

A working paper prepared as a timetable for the research outlines some goals and activities:

- Increase the growth of forage plants, thus reducing the amount of grain needed as cattle feed and freeing more grain for human consumption.
- Safeguard streams for trout and other wildlife.
- Develop grazing schedules and alternate grazing sites that will produce maximum environmental and economic benefits.
- Study grazing habits of deer and other wildlife in order to establish cattle grazing schedules in which cattle and wildlife are not competing for forage.
- Measure the effects of grazing on streamflow, water chemistry, sediment runoff, and soil water infiltration.
- Determine the nutritional carrying capacity of large-range sites for livestock and wildlife.
- Reduce soil loss on grazed lands.

Eckert says that findings from these and other studies will be used to evaluate the economic and social benefits and to determine the costs and benefits of range management systems that will be worked out in the study.

Asked how she could afford to provide her land, cattle, and the time and experience of her ranch personnel for the study, Saval Ranch owner Edwards answered, "How can I afford not to?"

Dr. Richard Eckert, Jr., is located at the SEA Renewable Resource Center, University of Nevada, 920 Valley Road, Reno, NV 89507.—(By Isabel Duffy, SEA Information, Washington, D.C.)



Opposite: Jeanné Edwards, right, has invited Richard Eckert, Jr., SEA range scientist, and other researchers to study grazing management of western sagebrush land on her 59,000-acre Saval Ranch in Nevada (0480X453-8).

Above: Michael Ralphs, Saval Ranch manager, rounds up part of the herd being monitored in the study (0480X452-9).

Left: Inspecting a topographic mock-up of the study area are, from left, Floyd Kinsinger, executive secretary, Society for Range Management; Joe Farrell, president, Freeport Gold Co.; Jeanné Edwards, ranch owner; and David Secrist, president, Nevada Cattlemen's Association (0480X456-8).