

only in browse, with a decrease of its cool-season grasses. No warm-season grasses occur in the trend measurement areas.

Vermillion Cliff's allotment grazing system is allowing a decrease in cool and warm season grasses. Browse is static. **NOTE:** Trend is measured in plots (now with transects also) located in a key area, which demonstrates management effects on the allotment. Vegetation area and species composition are measured to determine trend over time periods.

Conclusions

The observations indicate that as far as the Arizona Strip is concerned, utilization levels on the graze pastures should not exceed an average utilization of 55%. Any one grouping of

species (browse, cool, and warm-season grasses) that is used at higher levels—above 55%—during a graze cycle will decrease the species composition.

From the available data, it also appears heavy use at any season proves detrimental. Thus, average utilization during the winter, spring, summer, or fall, alone or together, cannot be allowed to exceed 55%. It can be said that drought occurs frequently enough on the Arizona Strip to negate the benefits (to forage) of rest periods from grazing, when high utilization of forage has occurred during the graze cycle.

Rest-rotation grazing will work in the southwestern deserts when applied as mentioned above; thus, such a system can fit into multiple-use management schemes.



Native Grass Leaps to the Sun

Frank Farmer

Editor's Note: This is a reprint from the *Springfield News and Leader*. It was submitted by Wayne Weaver, president-elect of the Southern Section, Society for Range Management. Weaver's paying job is Area Resource Conservationist for the U.S. Soil Conservation Service, Springfield, Missouri. The article tells what is happening in the Ozark Mountains of Missouri.

When Richard L. (Dick) Walker was a member of the U.S. Air Force he used to fly over the Ozark Mountains in southern Missouri on various training missions. He learned to appreciate the rugged hills. And so he made plans to retire in those hills.

He did just that about 12 years ago and began the almost impossible task of restoring the land to a productive state. That he succeeded, however, was manifested recently when he was honored with an award by the Soil Conservation Society of America.

The certificate reads: "This certificate is presented to the Richard L. Walker Ranch in recognition of Natural Plant Community Management in a wise and judicious manner."

The selection of the Walker ranch for the honor now gives Missouri four identified areas designated as "Managed Natural Areas."

The abstract of the nomination papers reveals this information about the ranch:

It is located seven miles south of Seymour in southwestern Missouri in both Webster and Douglas counties. The ranch contains 880 acres and is a cow-calf and steer backgrounding operation.

Approximately 130 acres are in native timbered areas that were sprayed, using ground equipment, to release the native grass species, Big and Little Bluestems, Indian Grass and

Switchgrass. These grasses and several native legume species have responded to the opened canopy of the woodlands. Northern slopes are maintained in hardwood forest for future timber production.

Soil types on the ranch are steep, well-drained deep soils with cherty surface layers having low available water holding capacity.

Annual precipitation is about 43 inches with a growing season of 175 days. Altitude will vary from 1,300 to 1,667 feet above sea level.

Walker discussed the development of the rugged area, "When we started," he said "we wondered if we could restore the place. We know what it used to be like, because a neighbor had told stories of how the grass grew so tall that you could not see the cattle. And then the place grew up in brush.

"When I first saw the land, I had to park my car and walk through it. The carrying capacity of the whole place was about 50 head, and only during the growing season. After I bought it, I unloaded my Caterpillar tractor in the road and started driving through the brush making roads, just so we could get over the place.

"The second thing was to build fences. We used steel posts so we could pack them through the brush on our back, but eventually we dozed out the fencerows."

Walker cleaned up several tracts with his dozer and seeded fescue grass but he also began to notice spindly clumps of native grasses. Then one year fire got out on a portion of the land and where the fire laid low the brush the native grasses were released—as well as Walker's imagination.

He decided to kill some of the brush by spraying, so drove his tractor and spray rig at random through parts of the brush and timber, spraying from the ground.

He subsequently sprayed from the air but that back-fired



Left to right: Ian Kurtz, SCS district conservationist, Christian County, Dick Walker, rancher, and John Lumb, SCS district conservationist, Douglas County. They are checking the identification and growth of warm-season grasses on Walker's ranch. This field was controlled burned earlier in spring for brush management.

because only the large trees were killed. This not only destroyed their lumber value but also released the smaller brush growing underneath so that an even more dense canopy was created, and he had to then spray from the ground to control the second growth.

Then he learned to use fire as a tool to control the brush and release the native grass. "You have to burn at the right time," he said. "Native grass puts out little tillers, then divide and become two blades. Before it divides, you burn. This does two things, it releases the plant from competition and controls insects and

fungus that attack the grass. You also get potash from the burned residue."

Many ecological purists would condemn the burning, but the best-versed management specialists now agree that controlled burning can be beneficial to the ecology. Walker is also interested in preserving the natural ecology and that's one reason he doubts he will spray from the air again.

He uses basically two grazing programs on the native grass. One program is to graze hard one year and rest it the next and the other program is to graze hard part of the year, every year and rest the grass the remainder of the season. He doesn't like to graze the natives closer than eight inches at any time.

Fencing the native grass is essential, however, because just as early as the native grass springs up, cattle will leave the fescue and graze the natives into the ground.

Walker says that companion plants with the native grasses are native legumes, such as winter vetch, lead plant, bundleflower, false indigo, tick trefoil, beggarlice, partridge pea, roundhead lespedeza, slender lespedeza, and prairie clover.

The legumes, of course, will fix nitrogen in the soil to feed the grasses. This is essential on many native grasslands, not only because nitrogen is expensive if applied commercially, but because much of the terrain is so rough it would be impossible to apply commercial supplies.

Walker, 58, spent 28 years in the U.S. Air Force, including piloting of fighters and bombers during World War II. His philosophy of life is simple, "I never look back," he said. "I live for tomorrow."

And tomorrow, as his wife, Jane, says, is seldom the same as yesterday. "When you follow someone around on a bulldozer who has never been on a bulldozer before," she laughed, "you find that life is not always peaceful in the country. Something is always happening."

Legislation to Take Over Federal Lands in Nevada Advances

Legislation to assert state ownership of federal lands in Nevada was passed recently by the state assembly by a vote of 38 to one and is expected to easily pass the state Senate sometime in May. (Background on bill in February WHR, p. 7).

Introduced by PLC President Dean Rhoads, who is a Nevada assemblyman, the bill is designed to force a court test of federal control of some 53 million acres in the state now administered by BLM and the Forest Service.

The bill recently was unanimously approved by a Nevada Senate committee and Rhoads reported that there are indications that Nevada Gov. Robert F. List will not veto it. Rhoads also said that state legislatures in California and Alabama have expressed interest in similar legislation.—*Washington Highlight Report, PLC, April 1979*

Injunction Denied on Suspension of 2,4,5-T Herbicide use

After U.S. District Judge Jim Harvey denied a preliminary injunction to block EPA's emergency suspension on the use of herbicides 2,4,5-T and Silvex on pasture and certain other lands, Dow Chemical Co. decided to throw in the towel on the temporary suspension proceedings and concentrate its resources on the cancellation hearings. The latter involves whether the herbicides should be permanently banned. NCA which joined in the injunction request supported the change in tactics.

In his decision, Harvey, who as a congressman was noted for coming down on both sides of an issue, said that EPA did right to suspend use of the chemicals but if he were in EPA's shoes, he would not have done so. (Harvey represented the Congressional District in which Dow has its headquarters.)—*Washington Highlight Report, PLC, April 1979*



Dates to Note

- June 26–27— Leafy Spurge Symposium, Kirkwood Motore Inn, Bismarck, N.D.
- July 5–7— Pacific Northwest Section, SRM Tour
- July 9–13— Nebraska Range Shortcourse, Univ. of Nebraska, North Platte Station
- July 12–14— Northern Great Plains Section, SRM, Tour and Meeting
- July 13–14— Wyoming Section, SRM, Summer Tour
- July 14–18— **SRM Summer Tour and Meeting**, Rodeway Inn, Pocatella, Ida.
- Aug. 13— Grasses and Grasslands Symposium, Oklahoma State Univ., Stillwater
- Aug. 23–24— Colorado Section, SRM, Meeting and Tour
- Sept. 15— National Capital Section, SRM, Field Tour
- Oct. 30–Nov. 1— South Dakota Section, SRM, Meeting
- Nov. 1–3— California Section, SRM, Meeting
- Nov. 16–17— Wyoming Section, SRM, Meeting
- Nov. 18–20— Pacific Northwest Section, SRM, Meeting
- Nov. 29–30— Texas Section, SRM, Meeting
- Nov. 30–Dec. 1— Southern Section, SRM, Meeting
- Dec. 4— National Capital Section, SRM, Luncheon
- Dec. 7–8— New Mexico Section, SRM, Meeting

