SRM Society for Range Management

View Point

Short-Duration Grazing in Retrospect–A Practitioner's Experience

By Sid Goodloe

hort-duration grazing" (SDG) is a commonsense approach to rangeland management that has been implemented, criticized, lauded, altered, and renamed since it was exposed to world scrutiny over 40 years ago. We now call this South African/Rhodesian-originated method of matching herbivores to plants "holistic planned grazing" (HPG). It has become an economic, environmental, and social improvement to the way land owners and managers approach animal use of grazing lands. Here I offer my own account of its history and my personal viewpoint as to its current and future utility for range managers faced with the task of contributing to world food production in the face of climate uncertainties.

In 1963 I was announcing the Smokey Bear Stampede rodeo in Capitan, New Mexico, when a neighbor approached the announcer's stand and told me that there was a man in the audience I should meet. Agreeing, I asked where this person was from. "I'm not sure, but I think he's from somewhere south of Artesia," was the reply.

Aubrey Mountain, a rancher from Rhodesia (now Zimbabwe), who had been selected as the top agriculturalist in his country that year and had received a Nuffield Scholarship to come to the United States to study our livestock industry, was the man, though not from Artesia, New Mexico, but from then-named Rhodesia in southern Africa (Artesia and Rhodesia do sound similar). I had suppressed an interest in going to Kenya several years before because of the Mau Mau Rebellion, so I had an interest in Africa and invited Aubrey to our ranch. He had other appointments at much larger operations in the Southwest but decided to cancel and stay with us because we were operating on a very stingy budget much the same as he was on his ranch. He stayed several days and after a trip to Arizona, he returned with Rose, his wife, for another week before flying home. Truth be told, I learned more from him than he did from me.

We kept in touch for a couple of years, then with the extra income from cutting firewood and fenceposts and from fee hunting on our ranch, my wife Shirley and I were able to purchase tickets to Rhodesia. We spent several weeks with Aubrey and Rose on their ranch near Que Que, then toured other ranches and game parks. The self reliance, innovative ability and hardiness of the ranchers we met left a lasting impression.

In 1966, while managing the Fort Stanton Range Research Station for New Mexico State University, I was offered the opportunity to work in Kenya as an adviser to their Range Management Division within the Ministry of Agriculture. During my 2 1/2-year stay in Kenya I flew to Rhodesia in 1967 to spend more time on Aubrey's ranch. We went to a "field day" on a neighboring ranch that had invited Allan Savory to be their key speaker. He introduced a grazing method developed by Andre Voisin, a French dairy farmer who had expanded on the benefits of "strip grazing."

A South African botanist named John Phillip H. Acocks had studied Voisin's grazing protocol and stated that "South Africa is overgrazed and understocked" and needed a new approach to grazing. He teamed up with Mr. and Mrs. L. N. Howell, ranchers from Springfontein, South Africa, to reduce selective grazing by installing the early forms of what was then called the "Acocks–Howell grazing system."

In discussions with Evlyn and Edward Rushmore, who ranched north of Bulawayo, Rhodesia, Allan had agreed with them that domestic livestock were degrading rangelands in South Africa. The breakthrough came later when the Rushmores and Savory realized that the method of grazing, not the number of cattle, sheep, and goats, was the problem. The Kroon family, clients of Savory's who had properties in Namibia and South Africa, became interested and successfully implemented what was then labeled SDG.

Savory had also witnessed land abuse caused by year-long grazing by livestock while serving as Provincial Game Officer in Northern Rhodesia (Zambia). He decided to investigate an approach to grazing management by rotating livestock through different smaller paddocks rather than leaving them in one large paddock throughout the year. Allan found that this concept, instigated by Acocks and the Howells and put into practice by the Kroon family as SDG, had some ecologically sound ideas involved. He then decided to work with ranchers who might wish to experiment with this alternative to the traditional year-round grazing practiced at that time.

After hearing Allan's description at the field day of how SDG was being used in Rhodesia, I went to visit several of



Figure 1. Allan Savory in Rhodesia, 1969.

the ranchers who had implemented an early version of rotational grazing. Due to a shortage of capital, these ranchers had removed wire from their boundary fences and used it to divide their large paddocks into smaller ones. In addition, they had combined their individual herds into a single larger one and moved them through the different paddocks. Allan had developed grazing control charts, a range register, and other information required for planning and implementing SDG on their properties. These ranchers were enthusiastic about the early results and were planning additional implementation of this grazing method.

In early 1969, Allan took me around Rhodesia in his airplane to visit other ranches that were implementing SDG. After that very informative trip I returned to Kenya and worked with Dr. Gene Payne of Montana State University to submit an article,¹ which, as far as I know, was SDG's first introduction to the rangeland management community in the United States as well as many other countries. At that time, I could not fully anticipate that the ensuing interest in this topic would give rise to decades-long discussions and, at times, vigorous debate that continues to this day.^{2,3}

Upon my return from Africa I received mail from many countries as well as the United States wanting to know more about SDG. In 1971 I followed basically the same fencing procedure on my ranch in New Mexico by finding old wire in ranch dumps, cutting my own posts, and dividing my pastures. I built "suspension fences" similar to those I had seen in Rhodesia and used topography and water availability to determine the pasture size and location. It took 2 years to build enough fence to concentrate my cattle and begin SDG in earnest. My animals averaged about 1 week in each pasture from mid-April to mid-November unless conditions were favorable for rapid growth. Then I sped up the rotation. After 40 years of fluctuating rain, snowfall, and cattle prices, I am still practicing the original method of planned rotation through seven to eight pastures in the growing season and leaving my winter range to grow grass so there is ample feed during the snowy months. By practicing brush control, mostly of piñon/ juniper, at the same time, more nutrients and moisture became available to herbaceous growth. On my ranch, SDG increased climax grass species such as Junegrass (*Koeleria macrantha*) and big and little bluestem (*Andropogon gerardii* Vitman and *Schizachyrium scoparium*), resulting in improved range condition, biodiversity, and livestock carrying capacity. Although drought in the last few years has severely curtailed that carrying capacity, the long-range stocking rate has increased about 20%. I have seen wildlife numbers and species diversity increase as well.

While the monitoring we did could have been more efficient and scientifically based, photographic monitoring has been in place since 1980. Our photo points and usage estimates aid our planning and replanning as we move forward through the year. Cool-season grasses and legumes have shown dramatic response because of protection in the early spring.

In 1978, before being forced out of Rhodesia and moving to the United States, Allan was invited to speak at the Ensminger Stockmen's School in Phoenix, Arizona. He remembers his first session describing his approach to rotational grazing had three attendees; he had a roomful for his second presentation and there was standing room only for his third. He was invited back to the Ensminger Stockmen's School in 1979. Accompanying him were Robert Vaughn Evans, the one Extension Officer in Rhodesia that supported SDG, and Stan Parsons, who later worked with Allan in his management schools in the United States. Allan moved to the United States in 1980.

While Allan was in the United States, I invited him to come to Carrizo Valley Ranch, and here he saw his first snow. Allan indicated that he would like to visit the range management departments of some of the universities in the West. I arranged a tour of several universities and traveled with him to New Mexico State University and was surprised at the reaction of the professors as they expressed their skepticism of SDG. For the most part, they were perturbed by Allan's knowledge of grazing animals and his alternative to year-round grazing. To this day some range scientists from academia remain skeptical of SDG or HPG. This is possibly due to the increased stocking rates routinely advocated by Savory. In my opinion, long-term research comparisons are needed between HPG currently offered by Allan Savory and alternative rotation methods such as the Merrill three-herd, four-pasture method or year-long grazing using equivalent stocking rates.

The years passed and Allan was conducting his Holistic Management schools that he started in1980 as well as consulting with ranchers who wanted to try SDG or HPG, as it was beginning to be called. During that time I was involved in international beef production for Diamond A Cattle Company out of Roswell, New Mexico. Allan and I kept in touch but didn't really renew our relationship until 2010, when my wife and I invited Allan and his wife Jody Butterfield Savory to come to the ranch and visit about all the changes taking place in our understanding of grazing and rangelands. We



Figure 2. Allan Savory, Carrizo Valley Ranch, Lincoln County, 2010.

also discussed the ranch and what had happened in the many years since I started following the basic principles of SDG. Allan was pleased that our biodiversity had increased dramatically but insisted that I needed more cattle to diminish the amount of bare ground, even though there was much less bare ground than when we started. He was not impressed with my brush control and controlled burning. I will explain more on this later in the article.

Allan had moved on from the Holistic International organization to the Savory Institute, with offices in Boulder, Colorado, as well as in Zimbabwe, where he and Jody established the African Center for Holistic Management. We briefly discussed his involvement in the global attempt to address the problem of widespread desertification. He was very modest in not mentioning the numerous awards he had received for his work in that direction.

In 2003 Allan received the Banksia Award for the person doing the most for the environment on a global scale that year. In 2010 he was honored with the Buckminster Fuller Challenge Award, which recognized those who had contributed something significant to bring agriculture and conservation back together. At the World Conservation Congress, Prince Charles of England recognized Allan for his attempts to solve the world desertification problem. In February 2013, Allan spoke at a Technology, Entertainment and Design (TED)ⁱ conference on using cattle to address the challenge of worldwide desertification and was recognized with a lengthy standing ovation. He is a finalist for the Virgin Earth Challenge Award, which will be decided this year.

In recent years Allan has established Holistic Management and HPG in many countries and is a recognized authority on global desertification. He is in demand to speak on desertification wherever the problem is recognized. In



Figure 3. Aubrey, Allan, and Sid at the "founders reunion," Dimbangombe Ranch, April 2013.

the United States, the Savory Institute, in partnership with impact investors, has teamed up to create Grasslands, LLC. Grasslands, headquartered in Boulder, Colorado, has purchased several ranches in western South Dakota and eastern Montana to take the lead in on-the-ground education about HPG for range managers and livestock producers.

After 45 years, I instigated a reunion of Aubrey Mountain, Allan Savory, and myself, meeting at Allan's ranch in Zimbabwe. Aubrey was visiting his daughter in South Africa so Cheryl and I met him and Rose in Johannesburg and we drove to Dimbangombe.

Our reunion took place with the surfacing of great memories and a rehashing of the history and evolution of HPG from its inception initiated by Andre Voisin's concept of strip grazing. Allan, Aubrey and I spent 4 days discussing Allan's beautiful, productive ranch—previously donated to the Zimbabwean government—where he and Jody spend their time while not at their home in Albuquerque. Their land stewardship progress in Zimbabwe and the educational facilities of the African Center for Holistic Management show what one determined couple can do regardless of the political, institutional, and environmental obstacles that they had to overcome.

During our tour of Dimbangombe we observed one of the innovative techniques used in grazing the cattle: that of a portable kraal (corral) that the cattle must be put in at night because of marauding lions and hyenas. Moving this overnight kraal, placing it where bare ground is prevalent, every 6 to 8 days seems to improve soil conditions as well as biodiversity of grass species. Observing some of the trampled and fertilized areas that are now 2 years old, we found marked improvement. During the day all cattle are kept in one herd and grazed in a planned pattern. Herders are with the cattle night and day and know where they are to graze. Watering large herds certainly has to be considered. This method satisfies Allan's hoof action, dunging, and urinating requirements for curing desertification, but it would take a much greater

ⁱA video of the TED talk is available online at http://www.ted.com/talks/ allan_savory_how_to_green_the_world_s_deserts_and_reverse_climate_change.html



Figure 4. One of the classrooms at the African Center for Holistic Management.

number of cattle to accomplish this on a large scale. Also, to accomplish this in the United States and many other countries would require a severe change in current management practices and employment.

I see Allan's current problem as his dreaded "overrest," because to achieve the required land condition on the entire property he needs a lot more cattle. His policy has been to bring in cattle belonging to the local community when they run short of grass as an example of solving the desertification problem with large numbers of livestock grazed in a planned pattern.

Allan and I differ greatly when it comes to stocking rates. Allan believes that only livestock can cure the global desertification problem. In areas where the rehabilitation must start with almost no ground cover, maintaining livestock condition without sufficient forage or supplement has not been adequately addressed. This approach also assumes that adequate, timely rains will arrive. Where there is some forage available, heavy, timely stocking does accomplish his objec-



Figure 6. Allan's ranch near Victoria Falls on the Zambia–Zimbabwe border.

tive. In my part of New Mexico, however, severe trampling or "soil chipping" makes pastures susceptible to our dry spring winds. Wind erosion, such as we would experience it, is not a problem in Zimbabwe but may be in some countries that are facing desertification.

Allan and I also differ on the use of fire. I believe that fire is an important part of many ecosystems when managed correctly, although now, after many years of fire suppression in the United States, controlled burns are increasingly difficult to manage. Repetitive fires are a constant problem in Africa, where there is an 8-month or 9-month dry season and a tremendous herbaceous fuel supply, unmatched in most of the United States; consequently resistance to any fire there is understandable. Allan believes that fire is rapid oxidation and creates vast areas of bare ground. I agree that after most fires a period of vulnerable exposure occurs, but how else can the minerals be recycled in a brittle environment and undesirable invading brush species be controlled? Fire is the natural predator that has kept tree and brush populations under con-



Figure 5. Movable kraal (corral) for overnighting cattle on Dimbangombe.



Figure 7. Wind erosion due to dry spring winds after heavy stocking and trampling in New Mexico.



Figure 8. Dated fire scars indict periodic fires until fire suppression began about 1900. (Tree section courtesy of Tree Ring Research Center, University of Arizona.)

trol for millennia. In the United States, tree-ring research at the University of Arizona has shown that most of our Southwestern ecosystems burned with low-intensity fires every 7 years to 10 years.

I am a firm believer in removing invading piñon and juniper along with thinning my overgrown ponderosa forests. Allan believes that trees are a natural condition in all ecosystems and should be left as a part of the mineral cycle. In my observation, the part of his ranch that had suffered a fire some time ago looked more productive than the areas with thick brush.

Despite our differences and those of others who contradict his approach to matching herbivores to various ecosystems, he has enlightened land owners and managers in many areas of the world with the importance of *thinking* about how to better manage their rangeland. Those of us who know Allan realize that political correctness is not in his vocabulary and I applaud him for that. As a stubborn rancher with a Neanderthal mindset, I know that sometimes we ranchers need to be hit on the side of the head with a 2×2 —easier to hold than a 2×4 —to crack a paradigm. That is Allan's specialty. In my lifetime I have seen dramatic improvement in overall range condition throughout the West, much of it because Allan Savory challenged those land owners and managers with a drastically different way to handle their livestock and rangeland.

Something controversial always stimulates our minds. In my case, the last 40+ years have provided results proving that exchanging ideas, even if they come from an unfamiliar source, can be of great value. We can thank Allan Savory for the stimulation that makes us *think holistically* and for evaporating some of our paradigms that were stagnating range and livestock management in the United States. My hope is that practitioners, scientists, and administrators will continue to exchange ideas and approach those that have merit with an open mind and positive attitude.

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