more reasonable subsidization policies, we believe the long term welfare of ranchers will best be served by allowing market forces to function freely without government intrusion.

Literature Cited

- Holechek, J.L. 1992. Financial benefits of range management practices in Chihuahuan desert. Rangelands 4:279-284.
- Holechek, J.L., R.D. Pieper, and C. Herbel. 1995. Range Management Principles and Practices. 2nd Edition. Prentice Hall Publ. Co., Englewood Cliffs, New Jersey
- Holechek, J.L. 1994. Financial returns from different grazing management systems in New Mexico. Rangelands 16:237-240.
- Holechek, J.L. and K. Hess. 1994. Free market policy and public land grazing. Rangelands 16:63-67.
- Knutson, R.D., J.B. Penn, and W.T. Boehm. 1990. Agricultural and Food Policy. Second Edition. Prentice Hall. Engelwood Cliffs, New Jersey.

- Schiller, B. 1991. The Economy Today. Fifth Edition. McGraw-Hill, Inc., New York.
- Torell, L.A. and W. Word. 1991a. Range livestock cost and return estimates for New Mexico, 1989. New Mexico Agr. Exp. Sta. Res. Rept. 656.
- Torell, L.A. and W. Word. 1991b. Range livestock cost and return estimates for New Mexico, 1990. New Mexico Agr. Exp. Sta. Res. Rept. 659.
- United States Department of Agriculture (USDA). 1993. Agricultural Statistics. United States Government Printing Office. Washington, D.C.
- Vallentine, J.F. 1990. Grazing Management. Academic Press. New York.
- Wallace, J.D. 1987. Supplemental feeding options to improve livestock efficiency on rangelands. *In*: Achieving Efficient use of Rangeland Resources, Fort Keogh Res. Symp. Montana Agr. Exp. St., Bozeman, Mont.
- Workman, J.P., S.L. King, and J.F. Hooper. 1992. Price elasticity of demand for beef and range improvement decisions. J. Range Manage. 25:337–340.

Viewpoint: Molding a Contemporary Image of Rangelands and Rangeland Professionals

Bertha C. Gillam

In less than five years we will usher in, not only the 21st century, but a new millennium as well. The dramatic forces of change and reinventing government are just beginning to affect the way the Federal government and specifically how the Forest Service is structured and functions.

Some think that we will be restructured, reinvented, reengineered, flattened-out, downsized, and delayered overnight. Therefore, having a state of mind that is flexible and innovative is a necessary offensive weapon for anyone in this changing work environment (Creativity Fringes, December 1994).

As we approach these historical milestones, we must ask ourselves whether we are adequately prepared to meet the complex challenges ahead. Is rangeland management in the traditional sense rapidly becoming a non-profession? Are we willing to make quantum changes and commitments so we can benefit from quality careers, and our Nation can benefit from quality rangeland professionals?

Peter Drucker has said and I concur, "The relevant question is not what shall we do tomorrow, but what shall we do today to prepare for tomorrow."

We all know change is not only a fact of life, but the very essence of life. Change is the reality for organisms and ecosystems; either they adapt to environmental change, or travel the route to extinction. The same adaptation principle is true for the "living" systems of human origin; such as corporations, universities, agencies, and professional societies, including the Society for Range Management, that are concerned with management of lands and natural resources. To remain relevant and viable, institutions must adapt to the changing environment. For rangeland professionals to remain relevant and viable, I believe their skills and expertise must be understood, valued and relevant.

"Molding a Contemporary Image of Rangelands and Rangeland Professionals" is the theme for this Professional Issues/Women's Breakfast this morning, and a very appropriate one at that! As Director of Rangeland Management for the USDA Forest Service, I am very much aware of the challenges that face rangeland professionals, and I have some thoughts on the changes we could make to remain "viable".

My remarks are intentionally aimed to make us think about how rangeland professionals can and should change over the next decade or so.

My remarks are divided into three areas. First, I will take a quick look at the history of our profession. Next, I will review some of the major factors that shape the nature of natural resources and management challenges we must successfully confront. Finally, I will advance some proposals for you to consider.

Now, let's take a quick retrospective look, using my agency, the Forest Service, as an example.

The foundations of the Forest Service were laid by scientists, naturalists, politicians and impassioned poets. One

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Bertha C. Gillam is Director of Rangeland Management for the USDA Forest Service in the National headquarters in Washington, D.C.

faction alone did not persuade the American people to support the new concept of National Forests...and it will not today. Gifford Pinchot and other founders envisioned the Forest Service as a beacon of excellence in land management, research, and assistance to others. One hundred and three years later, we are in a different world, a faster moving, more complex world that simply defies any "quick fixes".

There's a quote inscribed on the wall of the National Archives in Washington, D.C. that reads"

"The heritage of the past is the seed that brings forth the harvest of the future."

I believe this quote applies to rangeland ecology and policies which have evolved in a circular manner, and taken us back to our "rangeland ecosystem roots". Early range management was concerned with the health and productivity of complex systems and range policy contained some of the earliest approaches, such as plant composition and vigor, soil as a life support system, and ecological relationships of native and domestic animals (Kessler 1993).

About eight years ago, before the Forest Service made the transition to ecosystem management, the rangeland professionals began to emphasize sustaining ecosystem health and productivity through an initiative, many of you know as "Change on the Range".

However, the agency continued to operate under the old paradigm by dealing with specific resource issues/problems as they came up by fitting them into the various functional resource area pigeonholes. Timber managers dealt with forest health of diseased trees and wildlife managers dealt with declining animal populations, etc. Each group of staff specialists tried to mitigate problems from their own particular disciplinary perspective, rather than looking at the natural resource relationships in an integrated way.

Complex ecological, social, and economic questions involving rangelands got buried in the debates about livestock grazing on public lands. What was needed was an approach to bring the disciplines together to solve complex ecosystem problems, such as the role of fire, insects and disease, drought cycles, and herbivory. Managing rangeland ecosystems requires a comprehensive approach where land managers, livestock producers, educators, scientists, and interested citizens work together toward common goals (USDA Forest Service 1994).

So, with this rich history in taking an ecological approach to management, you would think that rangeland professionals would be a high commodity as the federal government, and many state and local governments, and communities, make the shift to an ecological approach to natural resource management. Right? Actually the numbers of rangeland professionals have gone down and many in the Forest Service are concerned that rangeland management may become a non-profession. I believe we have some work to do.

What kinds of things can the rangeland professionals and the Society for Range Management (SRM) do together to influence our viability and success? I don't have all the answers, just a few suggestions.

Effectiveness—The Measure of Success

We are going to be judged on results, and in the end, our measure of success will be in how effective we were in taking care of the rangeland resources. I propose that effectiveness must become the "hallmark" or focus of the rangeland management professionals.

I want to talk about four basic considerations in enhancing effectiveness and put forth one challenge.

Ecosystems–Enhancing Understanding

More than ever before, contemporary rangeland management requires knowledge and an understanding of how ecosystems work and respond to both the cumulative, and long-term effects of management. It includes knowledge about people's values and relationships of land and resource management to livelihoods and quality of life. People are an integral part of all managed ecosystems, and people's needs must be carefully examined and accommodated if there is to be any consensus about how our rangelands are to be managed. It includes improving the effectiveness of rangeland professionals to obtain from rangeland resouces the products and benefits necessary for human welfare.

I believe the rangeland professionals possess the critical skills that prepare them to function in this system approach; however, we should always be in the process of education for ourselves and for others.

Continuing Education–Staying Sharp

Rangeland professionals must always continue to learn to "stay sharp" to be effective. University diplomas are merely a ticket to board, a license to learn, a platform on which learning, new skills, and experience can be structured and from which wisdom can emerge (Cutler 1982). SRM must promote and support professional development of its members for the profession to remain viable. The need for training and new and better skills never ends and is critical today. "Leadership and learning are indispensable to each other" stated John F. Kennedy in 1963.

Integration–Working Together for Common Goals

To be effective in the future, rangeland professionals must find new ways to cross over barriers and integrate the various disciplines, while retaining our functional expertise. We need to become integrators and learn how to "market" our skills and expertise.

And to stimulate your thinking even more, I believe for SRM to be effective in the future, they must also find ways to cross over barriers and more closely coordinate (be integrated) with other professional societies, for example, the Society of American Foresters (SAF) and Wildlife Society to mention two. Only a few SRM members are actively involved with the SAF Range Ecology Working Group.

Rangeland management and research must become a blend of basic ecology, sociology, economics, and related

technologies. Other disciplines, such as conservation biology, landscape ecology, and restoration ecology are turning their focus to rangelands and have much to contribute to the type of management needed to move beyond the realities of the 1990's into the 21st century and rangeland professionals should aggressively elicit the contributions and involvement of these disciplines. We must continue to elicit the contributions and involvement of livestock producers and other citizens interested in working toward common goals.

Rangeland professionals should also retain strong, active voices in SRM.

Achieving Results–Empower, Support, and Reward Professionals

Rangeland professionals must be confident that SRM will fully stand behind good land stewardship decisions that may be politically unpopular. The agencies and SRM must empower and reward professionals that apply stewardship principles on the land. We must share the success stories as a vehicle to embrace and influence the continuing debate about livestock grazing on public lands.

Now the challenge!

New Paradigm–Contemporary Image

The kind of changes needed for the rangeland professional to remain relevant and viable requires leadership and a new paradigm. We must be proactive in determining our success in the future.

I suggest that, together, the SRM, agencies, universities, livestock industry, and various organizations should come together to:

define our profession, and

• mold the "contemporary image" of the rangelands and rangeland professionals.

A new paradigm would be one that does not diminish the importance of products and services, but treats the land uses in the larger context of sustaining healthy, productive rangeland ecosystems. I believe that commodities, including forage for livestock grazing, will play an important part in the future, as they have in the past.

It's never easy embracing a new paradigm and delving into the unknown. Interesting, yes. But never easy. However, to try to put the future in perspective, I want to quote the last verse from the poem, "Hazards on the Trail", written by an "impassioned cowboy poet" we all know and admire, Stan Tixier.

"The moral of the story,

Is neither sad or gory,

Is simply that-it can be clearly shown,

There's nothin' half as scary,

Or more gol-darned contrary,

Than fears you have of that which is unknown."

I agree with the "cowboy poet" and expect there will be many "hazards along the trail", but I also believe the future is ripe with opportunities for rangeland professionals to be effective, successful, and viable.

In Summary:

We are proud of our past, our history, and our culture. As I stated in the beginning, the dramatic forces of change are upon us. For rangeland professionals and the SRM to be successful, we need to effectively influence those changes. It is pointless to look around for others to lead—they aren't there. For better or worse, we're it!! Whether we recognize it or not, we are "agents of change" in how humans treat, consider, and use natural resources.

I believe we, as rangeland professionals, will be successful on into the 21st century and the new millennium. We can mold a new contemporary image. I hope we will work together to accomplish these goals.

References

Kessler, W.B. Evolution of Range Ecology Practices and Policy: Back to our Rangeland Ecosystem Roots. 1993 Rangelands 15(3):101-103.

USDA Forest Service. 1994. The Forest Service Ethics and Course to the Future. FS 567, 9 p.

USDA Forest Service Eastern Region. 1994. Creativity Fringes. 5 p.