Red Meat Production on U.S. Rangelands

JOHN E. MITCHELL

An open letter written by Norman R. French appeared in a recent issue of the Bulletin of the Ecological Society of America. In it Dr. French presented his evaluation of the U.S. Department of Agriculture (USDA) report entitled, "Opportunities to Increase Red Meat Production From Ranges of the United States." In doing so, he raises several interesting and thought-provoking points concerning two subjects those of us in range management hold with no little respect; i.e., improving rangelands and increasing range livestock production.

In brief summary, the USDA report projects an estimated demand for range livestock from approximately 215 million AUM's in 1970 to between 250 and 300 million AUM's by the end of this century. It concludes that the range is fully capable of meeting the highest projected demand by the year 2000, and, moreover, even has a reasonable potential to produce up to 566 million AUM's by that time—a 265% increase! The report at least implies that the principal source of this increase in beef production (the document assumes that little, if any, of the increased production will be provided by the sheep industry under all possible circumstances—a conclusion which I believe to be shortsighted) is expected to be derived from increased stocking rates. Finally, the report states that the expected gain will be achieved, "by applying intensive environmental and livestock management to each acre of the total available range area." In other words, range improvements.

French responds that it seems reasonable, however, to expect range improvements to come at the expense of increased stocking rates for the next quarter century, rather than as a means of increasing it. Consequently, he comes to a basic disagreement with...
conclusions reached by the report and
reaches his own decision that, if the
projected demand estimates for meat
are plausible, the United States will
eventually be required to import much
of its red meat from other producing
countries.

My viewpoint results directly from
reading French's letter.

First, I tend to agree with French
that magnitudinous increases in the
rate of livestock production on our
western rangeland, at least, are unlike-
ly. Some areas can show great
improvements if the right conditions
exist (e.g., closed sagebrush stands
that can be opened and seeded to grass
or unusable range that becomes usable
by introducing water), but, on an overall
basis across all of the 11 western range
states, a doubling in productivity by
the year 2000 cannot be expected if
demand only increases gradually.

The above seems even more logical
if you consider that rangeland is, by its
very nature, land not suited for any
single-purpose use of a more intensive
nature, and is therefore certain to
decrease before the boundaries of such
other uses.

On the other hand, I cannot agree
with Dr. French's conclusion that the
United States will have to rely on
imported meat to reach the projected
demands that are anticipated. These
goals can be reached quite simply if
the range livestock industry is devel-
oped in the coastal plain and Piedmont
plateau regions through our southern
tier of states, i.e., North Carolina,
South Carolina, Georgia, Alabama,
Mississippi, and Florida. The reasons
for such a potential are obvious to any
person trained in range management
who has worked there. For example,
consider the following.

Except for inorganic nutrients, the
abiotic driving variables for a
grassland-livestock ecosystem are in
plentiful supply throughout the year.
Yearly precipitation is between 45 and
60 inches per year and, compared to
western standards, is distributed even-
ly through each calendar quarter.
Moreover, potential evapotranspiration
rarely exceeds 45 inches per year,
except in southern Florida. Average
daily minimum temperatures are above
freezing in January, and average daily
maximum temperatures do not exceed
90°F in July.

As a result of the optimal abiotic
parameters, potential primary produc-
tion from managed pastures is high,
approaching even the productivity of
tall grass prairie ecosystems in the
eastern Great Plains. However, actual
productivity is, in my opinion, at least
an order of magnitude below what
may be reasonably obtained under
present "state of the art" range re-
source management.

Except for Florida and, to a lesser
extent, Mississippi, an adequate pro-
gram of range research and extension
does not exist in the Southeast. Con-
sequently, land owners and livestock
operators are not cognizant of the
returns they stand to realize from
making what a western rancher would
consider to be extremely secure invest-
ments. The Society for Range Man-
agement has not yet reached southern
ranchers, either. In 1974, there were
fewer than 100 members of the Socie-
ty in the Southern Section, which
includes all of 11 southeastern states.

The majority of livestock oper-
ations in the Piedmont Plateau are
uneconomically small, and are con-
ducted without regard for accepted
management and economic practices.
In addition, large tracts of this area
capable of supporting intensive range
livestock operations are untapped
while the landowners make less money
raising pulpwood, fruit, or cotton.
Therefore, the Piedmont Plateau is
especially capable of supporting an
increase in red meat production.

The potential which exists in
Georgia and its neighboring states does
not distract from the continuing res-
ponsibilities those of us in the West
have in furthering the cause of range
resource management and in improv-
ing our natural resource base. In fact,
most of the real challenges in natural
resource management will always re-
main in the arid West. There are
definite gains which can be made in
red meat production through im-
proved grazing practices, such as com-
mon use grazing, and other means.
Factors such as national energy policy
and land use planning will continue to
present those of us involved in range
management with problems and
opportunities.

It is likely that many of you do not
agree with my viewpoint; it is not data
based. No matter what your opinion, I
suggest that you read the reports and
opinions involved in order that you
might reach conclusions of your own.
After all, isn't increasing livestock pro-
duction on a sustained basis the basic
objective of our profession?

---

Herbicide Nomenclature and
Related Terminology

C.J. Scifres

"A certain degree of standard-
ization (of terminology) is necessary to
minimize misunderstanding and to
facilitate communication" (Range
Term Glossary Committee, 1974).
Although the Society for Range Man-
agement is not concerned with assign-
ment of common names to pesticides,
an increasing number of papers dealing
with various aspects of herbicide use
for range improvement are being pub-
lished by the Journal of Range
Management. In these papers, trade and
common names are often mixed, tend-
ing to confuse readers without a back-
ground in the properties and uses of
herbicides. Such mixing of herbicide
names (trademark, common, and
chemical) should neither be considered
by authors nor tolerated by the
Journal except in cases where no
common name has been assigned.

Clear understanding of the naming
system for herbicides will help prevent
collision for authors and audience.
All herbicides have three names or
designations:

1. **Common name.** This is a short
name to facilitate referencing of her-
bicide compounds (Table 1). Common
names of herbicides are assigned by
the Weed Science Society of America
(WSSA) nomenclature committee.

2. **Chemical name.** This is the
actual chemical designation of the her-
bicide, compound. Since many
herbicides are rather sophisticated
chemicals, chemical names are usually
too cumbersome for routine use.

3. **Trademark (trade name).** The
name under which the herbicide, as a
commercial product, is advertised and
sold. Trade names are much like col-
loquial names of plants in that they vary
from company to company for the
same basic herbicide (Table 1). In
technical communications among
scientists, use of trade names should

---

Author is associate professor, Depart-
ment of Range Science, Texas A&M
University, College Station 77843.

Approved by the director, Texas Agri-
cultural Experiment Station, as TA-12218.

Manuscript received

---

1 Range Term Glossary Committee, M. M.
Kothmann (Chairman). 1974. A glossary of
terms used in range management. 2nd Ed.,
Society for Range Management, Denver,
Colo. 36 p.