from 2 to 5 meters high.

Due to the high plant density most of the plants are concentrated in the lowest stem diameter classes. The height data show wide variability—40% of the plants are located between 1 and 2.5 meters. In these conditions, it is very difficult to walk through the brush. In some cases it forms a pure stand of chañar in the upper layer and in other cases a few low shrubs appear associated to chañar: Grabowskia duplicata, Celtis spp., Schinus sp., Acacia aroma. These shrubs are branchy and spiny and their presence restricts even more the traffic of man and cattle.

**Management Suggestions**

Once the chañar ecosystem is established, it enters a dynamic-steady-state. Changes are almost imperceptible. Only direct and dramatic human intervention may reverse the situation; for instance, manual extraction, root plowing at the first stages, bulldozing, etc.

Reinfestation is almost sure, even under more rational grazing. Plowing and seeding *Grama rhodes* is the first method to avoid reinfestation, but at least every 3 years the grama shouldn't be grazed to allow the accumulation of sufficient material to start and develop fire. The dense sod of *G. rhodes*, combined with fire action will avoid chañar reinfestation.

Chemical individual treatment is a very effective method of eliminating chañar invasion at the first stages. The recommended base treatment, is spraying with a 2% solution of Togar<sup>1</sup> in gasoil.

<sup>1</sup>Togar is the commercial trade mark for a mixture of picolinic acid and trichlofyr acid.

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**The Grasses in Literature—Addendum II**

**Alan A. Beetle**


1. The Bible
2. Ralph Waldo Emerson
3. John Greenleaf Whittier
4. Rudolph Ruse
5. John James Ingals.

That same article initiated a response from E.J. Dyksterhuis. With the same title he made an “Addendum” (see Vol. 16: pages 225 and 226, *Journal of Range Management*)

and suggested the following:

1. Julian Stearns Cutler
2. Robinson Jeffers
3. Carl Sandberg
4. W.A. Silveus
5. Donald Culross Peattie
6. L.H. Pammel
7. W.J. Showalter
8. William Elsey Connelly
9. an anonymous poet of the 1930s.

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**Literature Cited**


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Now I would like to propose a second addendum and to start with Walt Whitman, specifically his “Leaves of Grass” first published in 1885 and in particular his poem “A song for occupations” which says in part: Flour-works, grinding of wheat, rye, maize, rice, the barrels and the half and quarter barrels ————.

(2) Kirschner’s “Nature’s Healing Grasses” wherein he says in part in recommending grasses and herbs as a therapeutical agency, the emphasis should be placed upon their intelligent use but what are the grasses mentioned? Alfalfa! Comfrey! Kelp! Watercress! Parsley! Celery! Licorice!

(3) Killeffer’s “Two Ears of Corn, Two Blades of Grass”

The wonders of modern chemistry that can now produce all the necessities of life.

(4) Buell and Brigman in 1968 “The Grass Roots”

“In Kansas, a farmer complained that Johnson grass was spreading to his field from the neighboring county road right-of-way, and ultimately was successful in persuading the county commissioners to declare that grass a noxious weed, thus bringing it within the scope of the public weed eradication program. Here, by the way, is an excellent illustration of the way by which a function long considered private comes to be taken over by government. Here was no
grasping bureaucracy seeking new worlds to conquer, but only a farmer seeking to keep his field free of Johnson grass."

(5) Townsend’s “Beach Grass"

“I have called my present volume by the title of “Beach Grass”, partly because this grass is characteristic of the region and partly because of the meaning of its scientific name—Ammophila arenaria—the sandy sand-lover.”

(6) Kenly’s “Voices from the Grass”

“The grass in your front yard is to the insect a vast jungle of twisted blades, matted with logs and pebble-boulders. From this region arise the voices from the grass, some small and mellow, others harsh and strident, announcing an unknown world of countless wonders.”

(7) Dailey’s “Bed of Grass”

While I was in Australia for the Second International Rangeland Congress in 1984 I discovered a Mills and Boon paper-back by Dailey entitled “Bed of Grass.” Whether this and the following are literature depends on one’s definition of “literature.”

(8) L’Amour’s “Where the Long Grass Blows”

L’Amour has, according to the jacket “thrilled a nation by bringing to vivid life the brave men and women who settled the American frontier.”

(9) Blackburn’s “Short Grass”

The riders of the short grass were men baked in blood and bred in violence ---- a welcome of blazing lead was already in the cards.”

(10) Balch’s “Grass Greed”

“The young Texans ---- might wind up shooting his only living kin in a GRASS GREED war.”

(11) Richter’s “The Sea of Grass”

This is the story from which MGM made the motion picture starring Spencer Tracy and Katherine Hepburn.

(12) Buchan’s “Mountain Meadow.”

“An epic manhunt through the savage wastes of northern Canada.”

(13) Finally let us end with a smile quoting from Peanuts by Charles Schultz:

He was a very arrogant cowboy.
He would only ride on pompous grass.
(You mean pampas grass.)
I said he was arrogant, didn’t I?

Bibliography


SCS Practices Help Rancher

Matt Ricketts

A Lewis and Clark County rancher says planning and implementing soil and water conservation improvements got him through the drought without even a partial cattle liquidation.

“Without my grazing system the past few years, I would be in much worse shape financially with the drought and all,” explains Edward J. Grady, Jr., a second generation rancher in the Canyon Creek area. “I probably would have had to sell some cows and replacements like a lot of other people have had to do.”

Grady worked with the Soil Conservation Service (SCS) to develop a long-range plan and grazing system for his ranch. The improvements included spring developments, irrigation systems, fencing, stock water pipelines, and timber harvests.

A state representative, Ed used the SCS Great Plains Conservation Program to develop his grazing system. This program entails a contract between Ed and the SCS. Over a 10-year period, Ed will get cost-share money and technical help to install the soil and water conservation practices.

Ed’s perception of the Great Plains program has changed. Initially he thought government cost-share money to help pay for range and irrigation improvements was most important.

Now he thinks having the technical help from SCS range and soil conservationists is more important.

“Most ranchers and farmers couldn’t afford this type of help if they had to seek it through a private consultant,” Ed believes.

Grady already sees benefits to his long range planning and practices. “My range is in much better condition than it otherwise would have been during the drought, and I haven’t had to alter may grazing pattern even though it was the driest period in recent history in the Helena area.”

Ed also boosted hayland production through the installa-