

WHAT CAN WE HOPE FOR?

At the beginning of this book an old lady called Laughing Woman looked out from her hogan door at empty land baking in the sun and scolded you. “Who thinks about the sheep? There is no one. They just want to go forward. They just get in their car, and zoom. Off they go. Who cares anymore...”

Many older people say these things, but you do care. You watch the land as you zoom through Navajo Country in your car. You notice that the plants change as you pass a corral. You look for signs of plants that once were there, but now have gone. You see which young plants have started to grow. Does the soil look good? Are the animals fat — cows, goats, sheep, or horses? Do the people look rich or poor?

Most of what you see will not make you happy. Nearly everywhere the succession of plants and animals goes down year by year. And that is why so many young people must leave behind dust and mud, wind and flood, tumbleweed and snakeweed of Navajo Country to find work elsewhere.

However, the poor land that others leave behind can become the rich land that feeds your family. You can't find new, fresh land and take it, but you *can* find old, tired land and make it young.

In that way you can make a place for yourself where nothing existed before. You don't have to wait for rain. You don't have to rest the land for years and hope that the grass comes back. You and your stock can go to work at once. By the laws of Earth and Sky, succession will go forward if you give it a chance.

History, also, is on our side. The land has often suffered most where water and soil are best. That means your work may turn the worst land into the best land again.

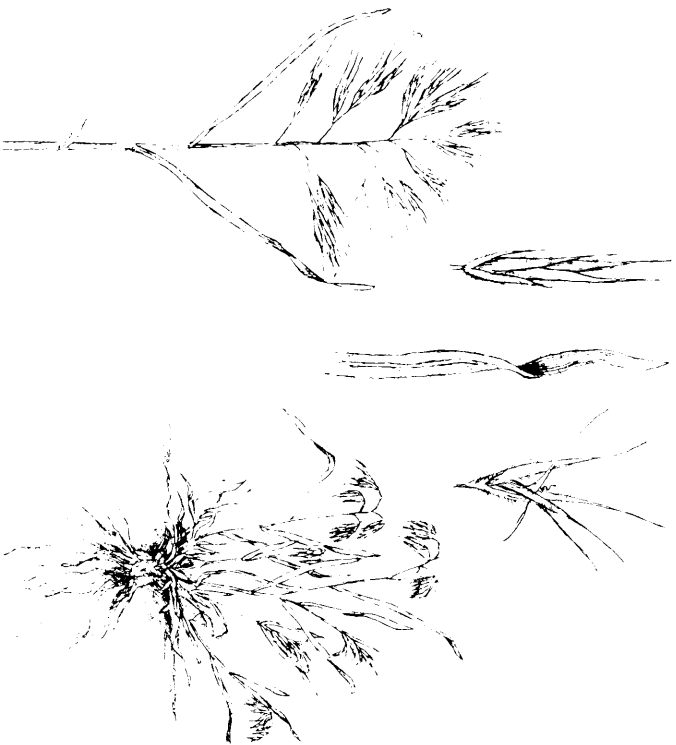
You will do nothing, of course, unless your family, your neighbors, and your community agree. But they will agree if you can share your strength and knowledge. People only become stingy and mean when they fear losing something. When land becomes poor, everyone loses, and everyone fears his neighbor.

When horses are dying everywhere, you can't say to your neighbor or your brother or other relatives, “Give me land so I may become rich.” But you can say to them, “Let's work together. We can double our herds.”

That is how you must think as you zoom through Navajo Country. The land is old, but the land is good. If we give it a chance, it will bless us and our children forever.

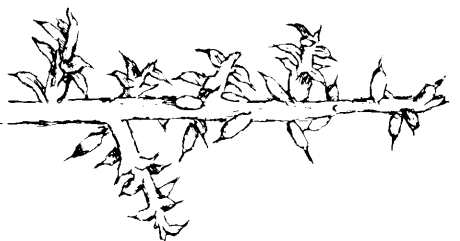


APPENDIX I
Some Common Range Plants of Navajo Country
ANNUALS



English: Cheat Grass
 Navajo: Shí Yinaldzidi
 Latin: **Bromus tectorum**

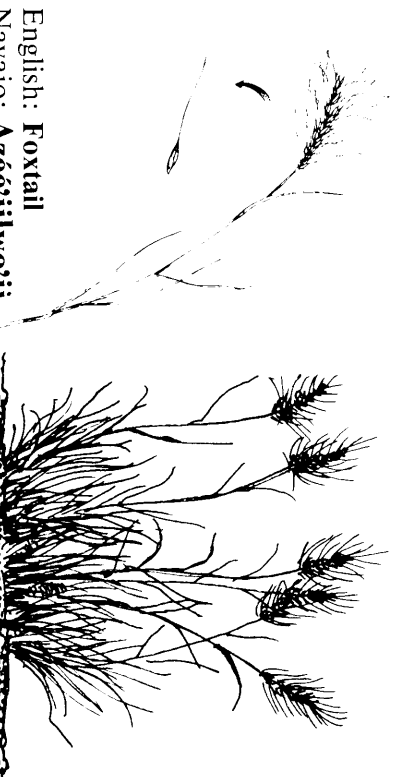
This grows everywhere in Navajo Country. It starts very early in the spring and is good feed until June when it turns *purple* and grows very sharp black seeds that can hurt livestock. It was imported from Europe.



English: Tumbleweed, Russian
 Thistle

Navajo: Ch'íl Deeníní
 Latin: **Salsola kali**

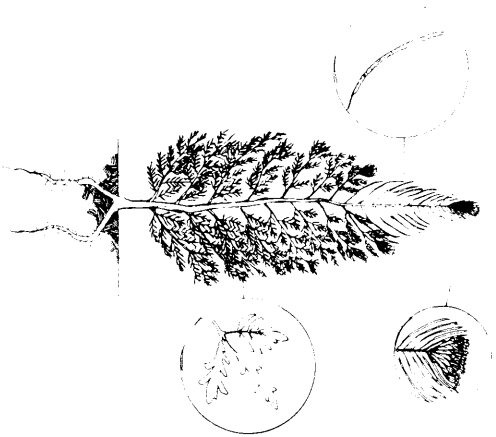
Everyone knows this one. It is very nutritious feed as long as it is tender, although livestock will usually eat more grass if they can. In many overgrazed areas, however, stock would not live though without tumbleweed. Old, damp tumbleweed is not good feed, but it's better than nothing.



English: Foxtail
 Navajo: Azé'íilwo'íi
 Latin: **Hordeum spp.**

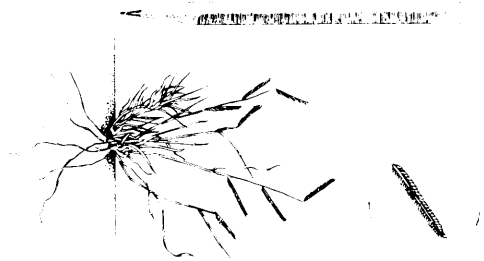
There are several kinds of foxtail, some perennial. All are related to barley. These grasses make good feed when young and tender, but the sharp seeds with four long points ("awns") are a real nuisance and get struck in lips, ears, eyes, and wool of livestock, often causing bad infections.

PERENNIAL GRASSES



English: **Mustard**
Navajo: **Oitse'**
Latin: **Brassica spp.**

These plants grow early in spring and are dry by June first. People use the yellow seeds for food. Mustard often makes an area look beautiful and green in April and May, but they are not important livestock feed.



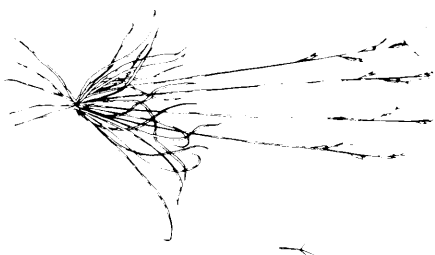
English: **Six weeks gramma**
Navajo: **Tp'oh Nástasishchín**
Latin: **Bouteloua barbata**

These tiny plants carry seeds like perennial grasses, but they are very small, short lived, and not much use to livestock. Sometimes you find them among greasewoods where no other grasses grow.



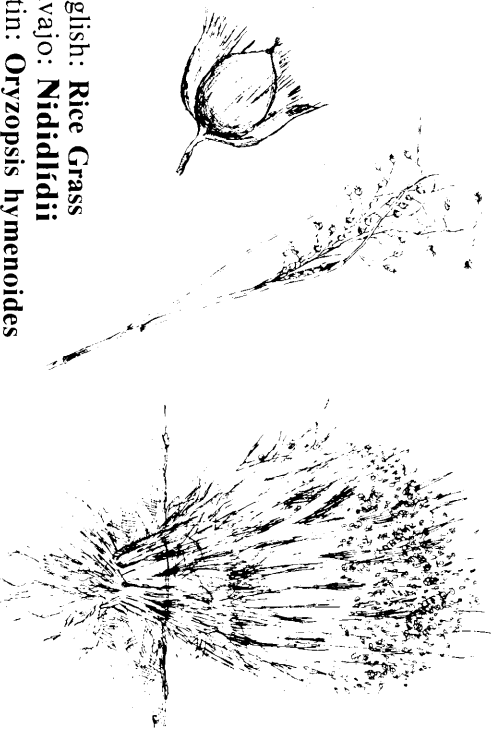
English: **Muhly**
(Spiny Muhly is most common)
Navajo: **B'ézhóó'**
Latin: **Muhlenbergia**
(Pungens and other species)

Spiny muhly is a low succession grass that often covers wide areas of overgrazed and over-rested land. It survives by growing sharp leaves that nothing can eat. The Navajo name comes from the hair brushes made from the stalks.



English: **Three Awn**
(Fendler three awn is most common)
Navajo: **Dlígó' Bib'ézhóó'**
Latin: **Aristida**
(Fendleriana and others)

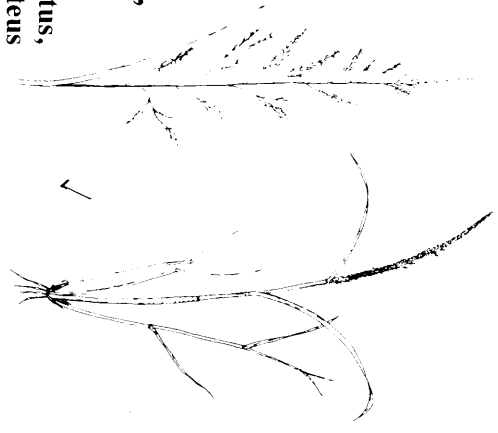
Several kinds of three awns grow. All have very sharp seeds with three long "awns" that stick in your socks and cause problems for livestock. Stock usually don't eat them if they can find anything better. Fendler three awn often grows right next to the pavement of reservation highways.



English: **Rice Grass**
Navajo: **Nididíidi**

Latin: **Oryzopsis hymenoides**

This grass looks like no other plant in Navajo country. It holds its seeds in a lacy cloud over its thin, almost round leaves. It is one of the first grasses to grow. It dries out in mid summer, and then grows again in the fall. It is good for livestock, but they will not eat the dried seed stalks. They often make an area look grassy when really there is nothing there to eat.



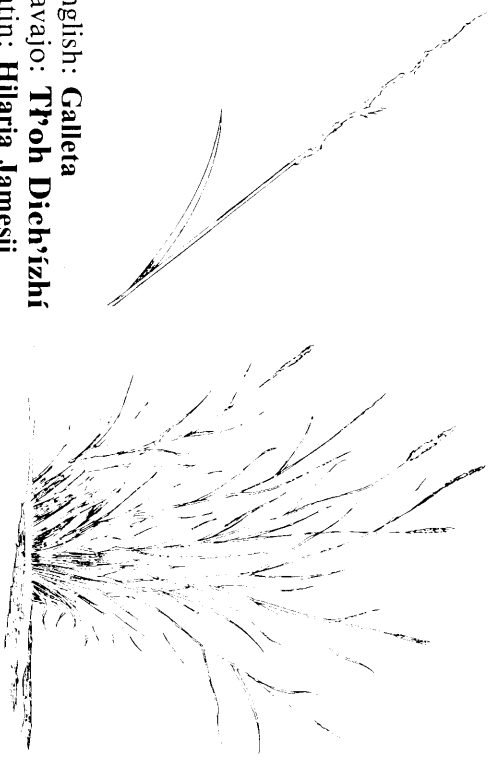
English: **Sand Dropseed, Giant Dropseed**

Navajo: **T'poh'tsohzhóó'**,

T'poh'ts'ózi,
T'poh Yilzólíi

Latin: **Sporobolus contractus,**
Cryptandus, Giganteus

Giant dropseed grows very tall (4 feet). Its strong seed stalk is bigger than a pencil, and the seeds run along it in a thin fuzzy head, almost like a cat tail. Sand dropseed looks exactly the same except smaller, though in some varieties (Cryptandrus) the seed head spreads into a small Christmas tree shape as it dries. Dropseed is good feed but seldom covers wide areas thickly.

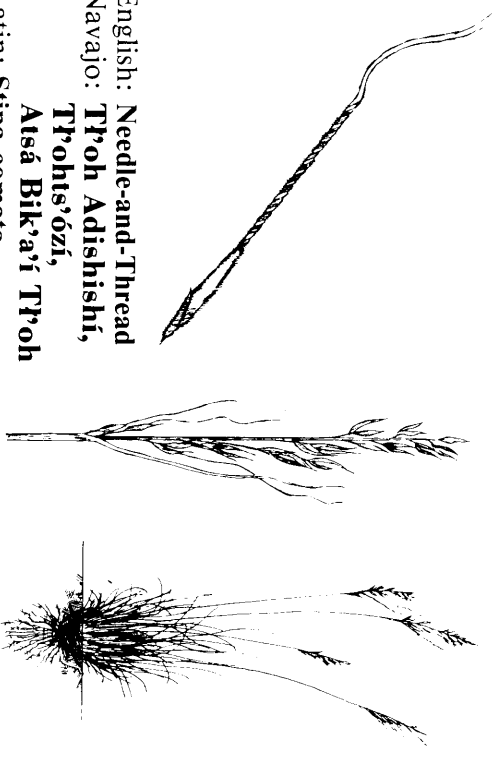


English: **Galleta**

Navajo: **T'poh Dich'izhí**

Latin: **Hilaria Jamesii**

Galleta is one of the most common and important grasses in Navajo country. It is easy to spot, because when the seeds fall they leave a short, stiff stalk with a zig-zag end that usually stays around for the rest of the year.



English: **Needle-and-Thread**

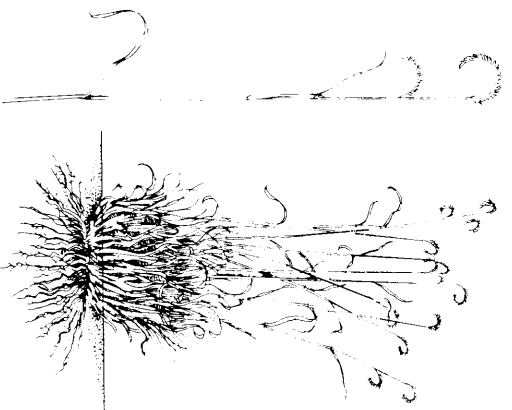
Navajo: **T'poh Adishishí,**

T'poh'ts'ózi,
Aisá Bik'a'í T'poh

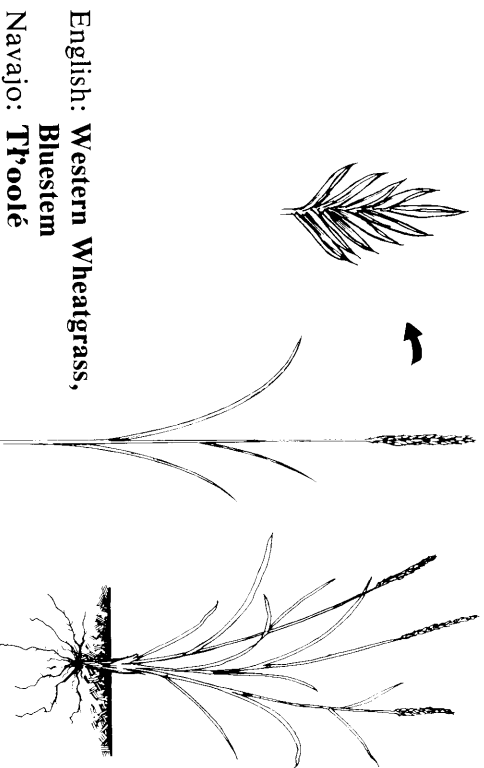
Latin: **Stipa comata**

This is the only tall (3 feet) grass you are likely to see in Navajo Country whose leaves *seem* to be taller than any seed stalk. The sharp (like a needle) seeds are often hidden where the leaves join the stalk. Each seed has one very long "awn" (like a thread) attached to it. These long awns give the grass a feathery look.

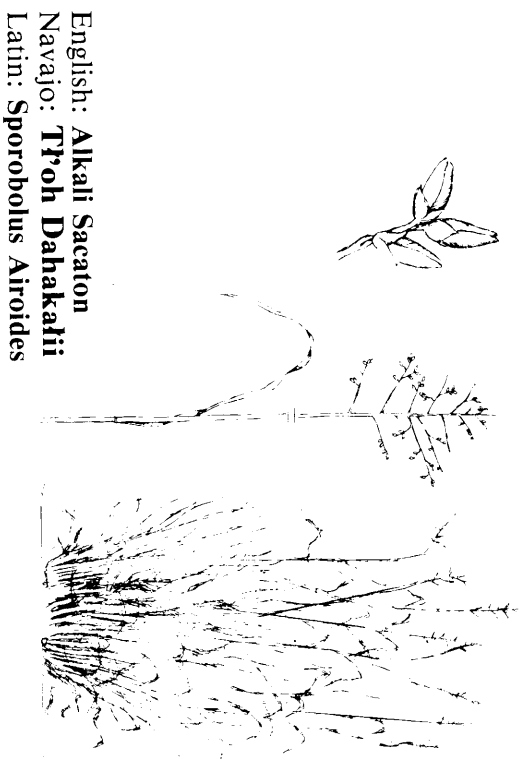
English: **Gramma grass**
(Blue and black)
Navajo: **T'6h Nástasí**
Latin: **Bouteloua gracilis,**
Bouteloua eriopoda



Blue gramma is most common in Navajo Country. You can tell it from black gramma because it usually has only two or three seed heads to a stalk. Black gramma has 3 to 8. Also blue gramma seed stalks have a tiny spike that sticks out beyond the last seed head. Both are very good range grasses. There are also other gramma grasses, but these two are most important on the reservation.



English: **Western Wheatgrass,**
Bluestem
Navajo: **T'p'oolé**
Latin: **Agropyron Smithii**
This blue-green grass grows best in the higher parts of Navajo Country. The seed head looks like wheat, which is closely related. It is very nutritious and has disappeared in many overgrazed areas.



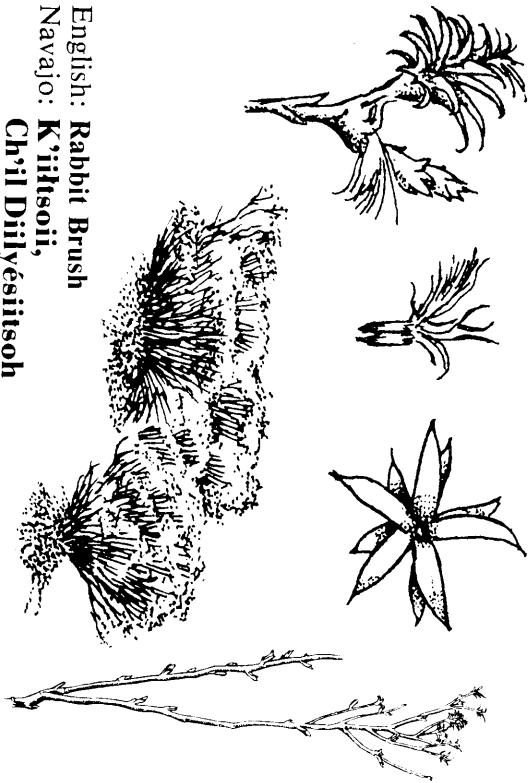
English: **Alkali Sacaton**
Navajo: **T'p'oh Dahakatii**
Latin: **Sporobolus Airoides**

Alkali Sacaton likes salty clay soil, but may be found elsewhere. It grows tall (3 feet) and the strong seed stalk grows a head like a small Christmas tree. It is related to the dropseeds and some of them look just like small alkali sacaton plants.

BUSHES

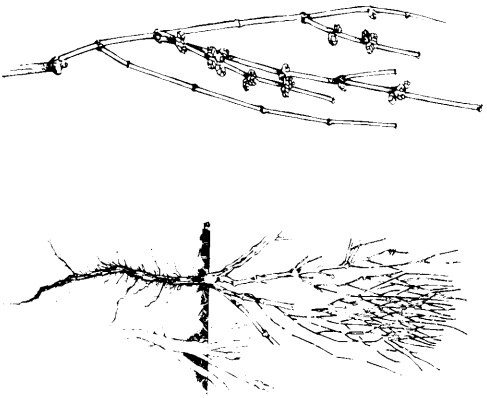


English: **Snakeweed**
Navajo: **Ch'íl Dii'yésii**
Latin: **Gutierrezia spp.**
Snakeweed may be the most common plant in Navajo Country. The small round bushes grow nearly everywhere. Most of the summer they are bright yellow with small flowers. Sheep and goats will eat them, but don't like to. They hurt horses and cattle. They may take over overgrazed or over-rested land, and old timers say there used to be far fewer of them.



English: Rabbit Brush
Navajo: **K'ihitsoii,**
Ch'ih Dilyésitsoh
Latin: **Chrysothamnus spp.**

This grey-green bush grows in the same areas as snakeweed and for the same reasons. It is a little bigger than greasewood and doesn't have ordinary leaves.



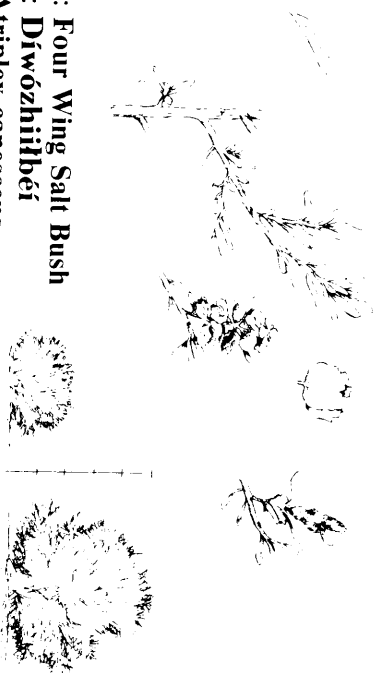
English: Mormon tea
Navajo: **Ty'oh Azihii**
Latin: **Ephedra spp.**

Mormon tea has no real leaves, only jointed green stems. It holds soil well, so it often grows on little hills in areas where wind erodes the rest of the land. It is not the best livestock food, but is green when other plants are not, and is therefore important.



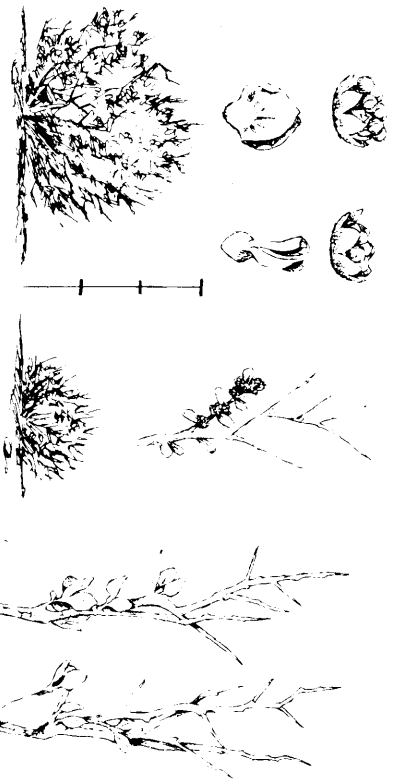
English: Greasewood
Navajo: **Díwózhí**
Latin: **Sarcobatus vermiculatus**

Greasewood often covers large areas where its long roots can find water. Almost all greasewood areas in Navajo Country are so badly overgrazed that few other plants besides tumbleweeds are found among greasewood. This happens for two reasons. In dry summers, greasewood will stay green when nothing else can, so animals may stay in greasewood areas for weeks at a time. Also, greasewood itself can stand overgrazing for years because overgrazed bushes become more and more sticky and hard to eat. Overgrazing does kill even greasewood in time, however.



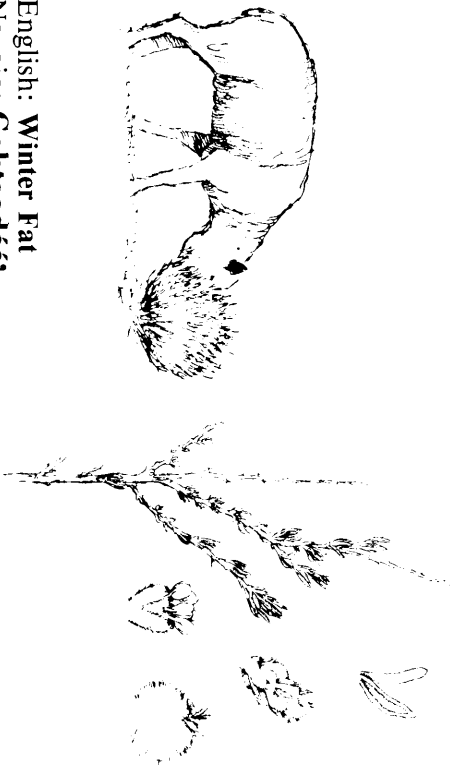
English: Four Wing Salt Bush
Navajo: **Díwózhíhábéí**
Latin: **Atriplex canescens**

The Navajo name means "gray greasewood" and describes these plants well. They don't need so much underground water, however, and grow on dryer land. The seeds have four wings. These are good feed plants and provide salt as well as nutrition. Survive on overgrazed land where grass has disappeared. The leaves fall in winter.



English: **Spiny Saltbush, Shadscale, and others**
 Navajo: **Dá'ák'qózh**
 (Several kinds)
 Latin: **Atriplex confertifolia**
 (and others)

Spiny Saltbush or Shadscale is "two-wing" saltbush. Its seeds have two wings. It is much like four-wing saltbush, but its leaves are rounder, and stay on the plant all winter. It is a good winter feed plant and survives well on overgrazed land.



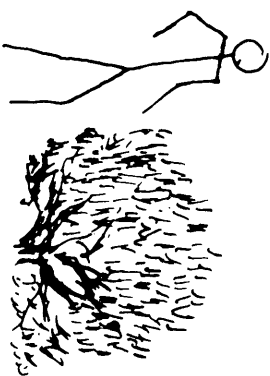
English: **Winter Fat**
 Navajo: **Gahtsodáá'**
 Latin: **Eurotia ceratoides**

This excellent winter food plant is often grazed to death. Where it survives you can best recognize it by the fluffy seeds that make healthy plants look like lambs tails.

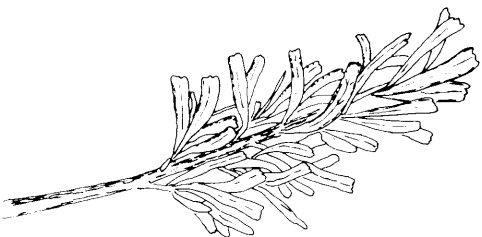


English: **Loco Weed**
 Navajo: **Ljį́ Binaá' Írdjį́hí**
 Latin: **Astragalus spp.**

Several kinds of loco weeds and related plants cause problems, especially for horses that seem to become addicted to them. They turn green before most other plants, so hungry animals may eat them in early spring. They often grow in wet places near the bottom of cliffs.



English: **Sage Brush**
 Navajo: **T's'ah**
 Latin: **Artemisia spp.**
 (Tridentata most common)



Everyone knows this bush by its smell. Livestock do eat sage and sometimes even kill it by overgrazing, but usually it increases in overgrazed and over-rested areas. In many places sagebrush has been knocked down to give grass more room to grow, but it usually comes back quickly, if grazing is managed badly.

How to Order

The BIA Land Operations office in your agency should be able to tell you the names of the 7½ minute maps for your land. Or you can send a post card to:

Branch of Distribution
U.S.G.S.
Box 25286
Federal Center
Denver, Colorado 80225

APPENDIX II

Maps for Planning Grazing and Handling Land Questions

Maps scare a lot of people, because they have so many lines on them and look complicated. Don't give up! You don't need a school education or English language to read a map or explain it to someone else, if you understand only a few things.

The only really good maps for range work are the U.S. Geological Survey (USGS) "7½ minute" maps. They are also called the 1:24,000 series because the land is 24,000 times bigger than the map. A mile is about 2½ inches on the map, and they show most springs, wells, dirt roads and houses. Each map covers an area about 9 miles north to south and 7 miles east to west.

When you use a map, put the top toward north so it will match the land. Then look for roads and land marks that you recognize. Usually, if you find one place you know, you can find other places.

The thin brown lines that look so confusing at first show up hill and down hill. You don't see them on the land, of course, but if you walk from one line to the next you will be going up or down 20 feet.

Where these brown lines are far apart, the land is flat. Where they are close together, it is steep. Dark bunches of these lines show cliffs. Hill tops will be circles. Small numbers on these lines show height above sea level.

On the card say: "Please send me the 7½ minute map index for the state of _____." And give your address.

You will get a big map of your state covered with little squares showing the names of all the 7½ minute maps. On the back of this index will be a list of places you can buy the maps. Or you can order them straight from Denver. Just send \$2.00 for each map by check or money order.

Say: "Please send the following 7½ minute maps from the state of _____."

List the names, and give your address. That's all you need to do. NOTE, however, the indexes for some areas of the reservation are old. Especially in Arizona many maps are not shown. But they do exist. You can get quick help over the phone from Denver by calling 303/234-3832. You can also circle the area you need on the index and send it back to them.

Many people give up here, because they find that the land they are using is not the same as the BIA's map. This is the time to sit down with your neighbors and reach agreement on where the fences really should be. The BIA will change their map if the permit holders involved agree.

APPENDIX III

Withdrawing and Fencing Land

If you want to fence land on the Navajo reservation, you must go through some very complicated procedures involving neighbors, the local chapter, the grazing committee, the tribal government, and the BIA. This can take months, especially if you leave out any steps and have to do something over again. Here are the steps you must take:

3. Go to the chapter with your maps, your signatures, your plans, and friends who will speak for you. You must get the chapter to pass a *support resolution*. Also get a copy of the minutes of this meeting if you can.

4. Attend the District Grazing Committee meeting. Bring all the signatures you have collected, and invite all neighbors and relatives who will support you. You will have to explain your operation and management plan, so you will need at least a good map of the land. The Committee will schedule a special meeting on your land to check the exact area you have in mind.

You must get a *support resolution* from the Committee and a *copy of the minutes of the meeting*. It may take several meetings, but *these papers are important*.

5. You must now get approval from the Resources Committee of the Navajo Tribe. Here are the things they require before they will put you on the agenda:

- Copies of the grazing permits of all the people who will use the fenced land.
- The *BIA Withdrawal Application Form* signed by all neighboring permit holders.
- The *Chapter Support Resolution* and the *Minutes of the meeting where it was passed*.
- The *District Grazing Committee Support Resolution* and the *Minutes of the meeting where it was passed*.
- A certified map of the fenced area from the BIA Branch of Land Operations.
- A short description of your plans for managing the land.

Start working on a *management plan* at this time. This plan will describe how you will manage your land — what fences you will build, how you will move your stock, how the ownership of the stock will be divided, etc.

Since your neighbors will have to agree to your plans invite them to your meeting or tell them your plans as soon as possible so there will be no false rumors about your plans.

2. Get the *Customary Grazing Use Withdrawal Application Form* from the BIA Branch of Land Operations in your Agency. This must be signed by all the *grazing permit holders* on neighboring land. The BIA grazing officials can tell you who these are. You may be surprised to learn that some of them have moved far away or died.

The people at BIA Land Operations will help you get all this together and make the presentation to the resources committee.

6. If the Resources Committee approves, the whole packet of papers goes back to the Agency BIA Superintendent for final approval. The BIA will keep the originals and send a copy back to you.

7. Get to work at last.

