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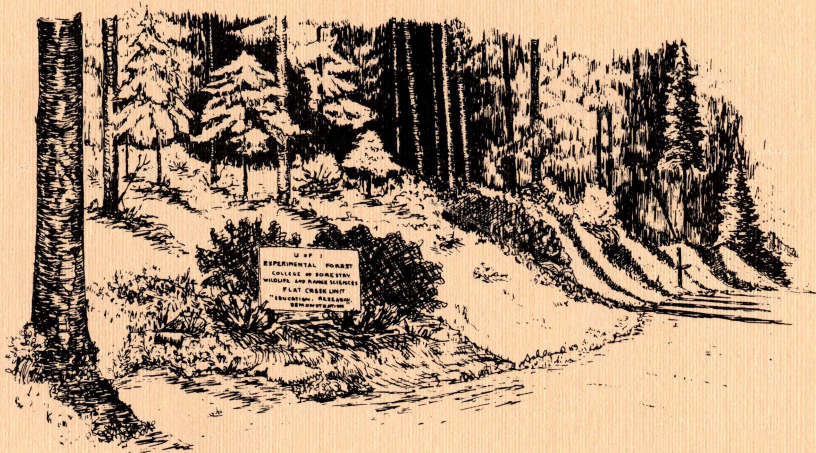
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**University of Idaho  
Experimental Forest**

## ***Flat Creek Driving Tour***



**College of Forestry, Wildlife  
and Range Sciences**



**University of Idaho**

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## Welcome!

You are entering the Flat Creek Unit of the University of Idaho Experimental Forest. Beginning at the unit entry sign on Brown's Meadow Road, the 4½ mile Flat Creek Driving Tour will identify and explain to you some of the history and many of the management practices inherent to modern forestry. The following pages contain information about each of ten interpretive stops along the tour. Each is marked with a numbered, brown and yellow sign. Each stop also has a pull-off, enabling you to pause and view the area as you read about it. Please be sure to pull far enough off the road so that others may pass safely.

The Experimental Forest is a working forest. Therefore, along your tour you may encounter ongoing management activities not mentioned in this brochure. A logging operation, a researcher checking his/her plots or a university class studying some aspect of forest management: all are common sights on the Experimental Forest. In such an instance, please respect the wishes of the person in charge.

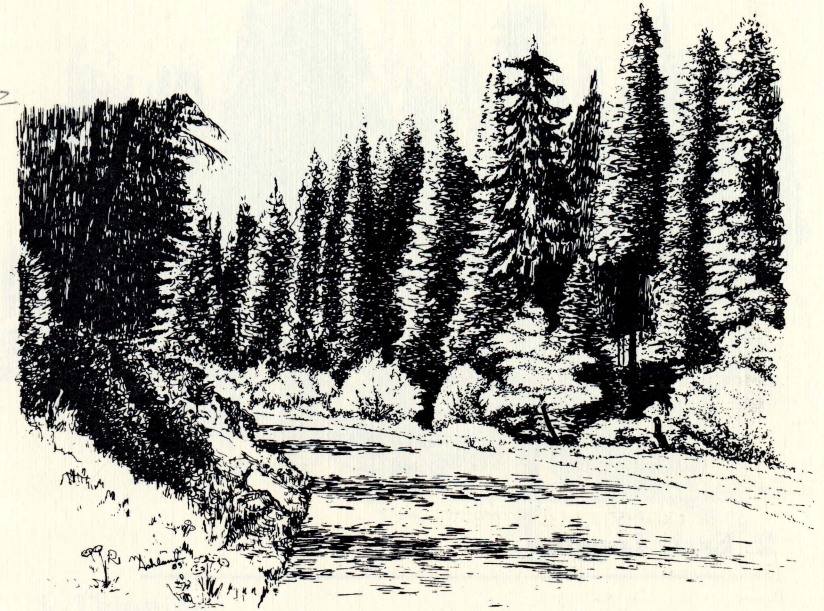
The road you will follow is narrow and winding. You may encounter livestock or wildlife on it. You may also be sharing the road with fully loaded log trucks. Please drive no faster than 15 mph, and be attentive. Your first stop is .4 miles ahead.

Harold L. Osborne  
Associate Extension Professor  
Manager, University of Idaho  
Experimental Forest

**ENJOY YOUR TOUR!**

Graphics by Lorraine Ashland  
College of Forestry, Wildlife and  
Range Sciences, graphics artist

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### 1. Frost Pocket

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Along the road for the next several miles is what is known as a frost pocket. It is a cool, damp area caused by cold air draining down off the surrounding hills and accumulating in the bottom of a draw. The trees here are adapted to temperatures colder than those normally found at this elevation. Engelmann spruce, with its dark, sharp needles; subalpine fir, the light-barked trees with soft, flat needles; and the longer needled lodgepole pine are typical of frost pockets such as this.

Your next stop is .4 miles up the road.





## 2. Early Logging

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It was around 1915 that loggers began to cut the timber in this area. Big old-growth western larch, western white pine and ponderosa pine fell to their sharp crosscut saws. When the loggers had taken all of the most valuable timber, they moved on, leaving the forest to renew itself. Many of the large stumps dating from those early logging days can still be seen as you walk through the woods.

To get the logs to the mill, railroads were built. This meadow was the site of a temporary railroad camp. The road you are on follows parts of an old railroad grade, as do many of the local roads. The picnic table at stop number 5 (natural area) sits just off the old railroad grade.

Stop Number 3 is just .5 miles ahead.



## 3. Thinning

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Just as you thin carrots in your vegetable garden to get large carrots in a short time, we thin the forest. Thinning is used to remove inferior trees and to increase the spacing between trees so there is less competition for the light, water and nutrients that the trees need to grow.

On a pre-commercial thin such as this, the cut trees are usually left on the ground, as they are too small to take to a mill. The trees thinned from this stand, however (a stand is a fairly uniform group of trees, like a herd of cattle), were sold to local firewood cutters.

Around 1995, twelve years from the first thinning, this stand will be thinned again. By then the trees will be big enough to send to the mill, making this second thinning a commercial thin. About ten years after that, a second commercial harvest will take place.

You probably have noticed that some trees are marked with paint. During a logging operation, the paint shows loggers which trees to cut or leave. This stand was marked to leave, meaning that all the trees sprayed with yellow paint were to be left standing. A stand may also be marked to cut. The blue paint marks the boundary of the thinning.

Around the corner about .15 miles is stop number 4.





#### 4. Shelterwood Cut

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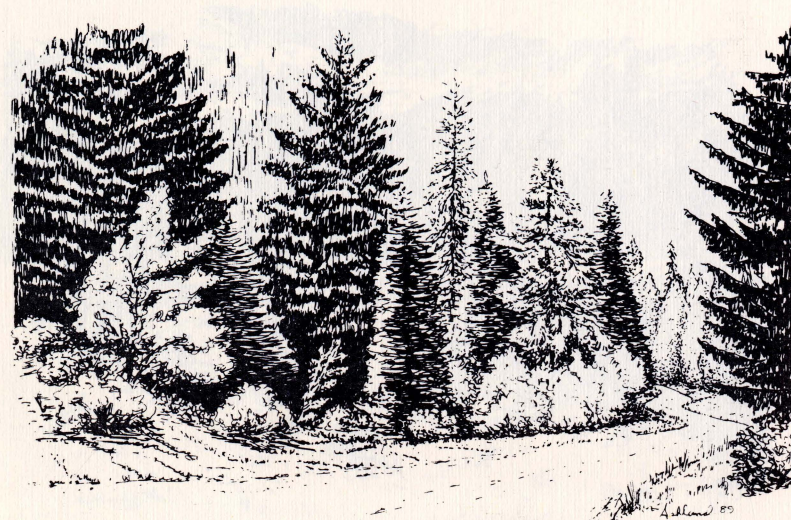
A five-acre shelterwood cut is up the hill. It differs clearly from the uncut forest to its right and from the clearcut to its left. The idea in a shelterwood cut is to leave enough well-spaced trees—20 to 30 per acre is typical—to provide shade and seeds for a new forest.

Foresters plan shelterwood cuts when they want to grow trees that regenerate better in the shade. Grand fir and western redcedar are two of the shade-loving trees found on this forest.

Great care must be taken in harvesting the trees from a shelterwood cut so that those remaining are not damaged. The trees cut here were pulled up the hill by a cable machine so that tractors and cats would not damage the site.

In about ten years, when the young trees are mature enough to make it on their own, the shelter trees will be removed to make more room for the new forest.

Your next stop is 4 miles away.



#### 5. Natural Area

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The Hemlock Natural Area lies across the road from this stop. Hemlock, like the other natural areas on the forest, was established to preserve a unique forest segment which has been relatively undisturbed by management activities.

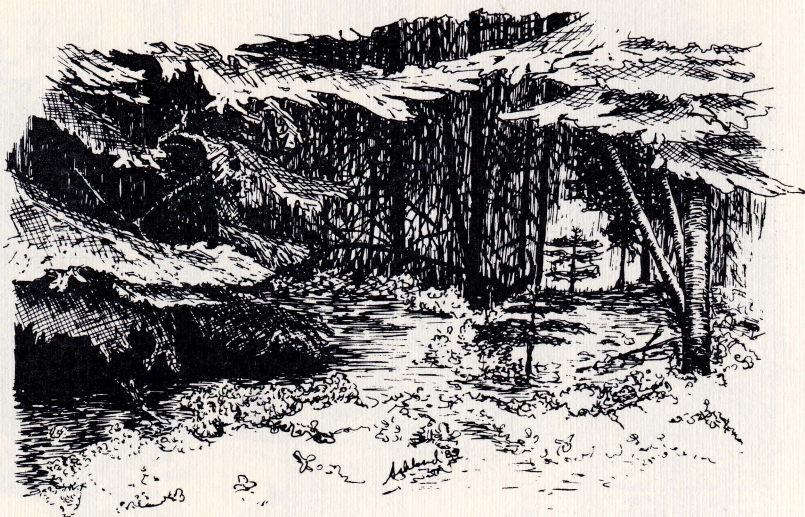
This natural area is one of the few places on the forest containing western hemlock trees, as the Palouse is about as far south as hemlock is adapted to grow. They are found most often in cool, moist areas and are identified by their numerous small cones. The natural area also supports numerous western redcedar. Look for their stringy bark and scale-like needles.

One of the reasons for preserving a natural area is so that foresters, students and the public can look at it and compare it to intensively managed areas of the forest. Through this we can learn about the effects of management practices on forest lands.

Take a break from driving and make your own comparisons along the 3/4-mile Hemlock Trail. You will pass through the natural area, a shelterwood cut, a clearcut and two narrow strip clearcuts. What differences and similarities can you find in each area?

Stop 6 is .1 miles ahead on the left.





## 6. Unmanaged Forest

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When the early loggers came to this area, they gave little thought to the future of the forest. Their only concern was the value of the trees then ready for harvest. Today, with the world demand for wood products continually growing, it is important to manage our forests so that they continue to produce quality wood for homes, paper, furniture and other products.

Stands with thick growth, like the one on the left, do not produce as much wood as they could. Management activities such as thinning will allow the same site to produce more wood in less time.

Managing a forest is a little like planning a trip into the future. Although foresters can't predict the outcome of their actions with absolute certainty (Mother Nature sometimes intervenes), they plan management activities such as thinning and logging well in advance. It is this kind of advance planning that will ensure a productive forest and a steady supply of wood for the future.

The next stop, in Brown's Meadow, is .8 miles ahead on the left. At .75 miles you will make a right turn.



## 7. Brown's Meadow

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No one seems to remember just who Brown was. A Mr. Peterson homesteaded this natural meadow in 1906. Under an early congressional act encouraging settlement, he was allowed 40 acres to live on and to log.

A timber cruiser by trade, Mr. Peterson knew the value of the big old-growth trees that surrounded the meadow. He built his frame house on the hill to the right, plowed the meadow to raise oats for his stock, caught trout in the beaver-dammed stream and began cutting his timber. Although he left nine years later for the promise of new timber, the 40 acres surrounding Brown's Meadow remains in the Peterson family. The beaver and trout have long since left the creek. Cows now occupy the meadow in summer, and in winter only elk and deer seek shelter here.

The next stop is .5 miles up the hill.





## 8. Pine Plantation

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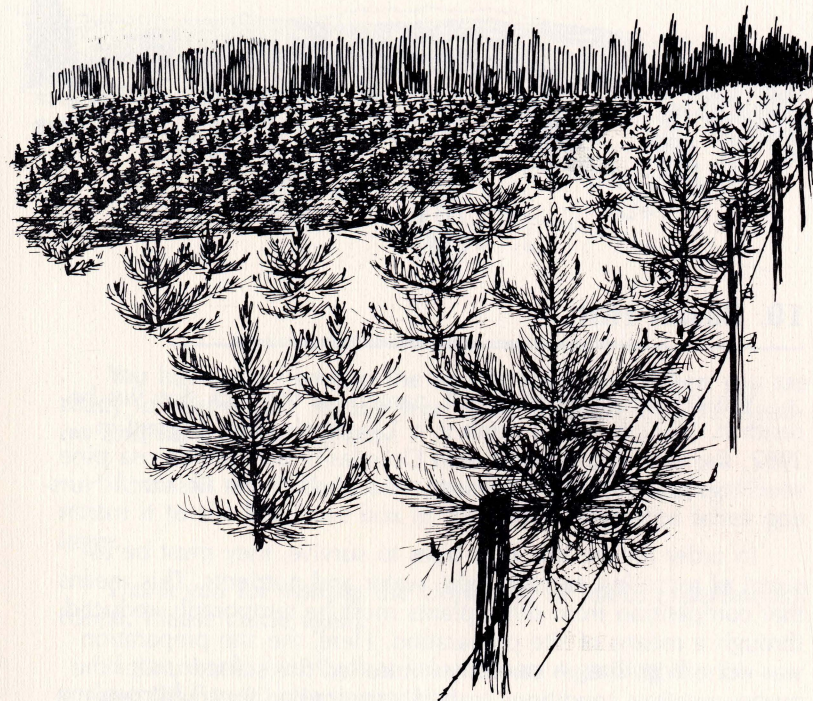
You are surrounded by a plantation of ponderosa pine trees. This site was clearcut in the summer of 1960 and planted the following spring. Around 1995 it will be commercially thinned. Twenty years later it will again be harvested.

As you drive through the plantation, look at the tops of the trees. You will see that some are broken, dead or stripped of bark. This is the work of porcupines. Porcupines climb trees to eat the tender, young inner bark at the tops. Porcupines can be a serious threat to pine plantations and have damaged many trees here.

As you continue driving, you will see a fence on your left. It is part of a small grazing enclosure (an area protected from live-stock grazing) that has been here since these pines were planted. Look at the shrubs growing inside the fence. Compare those shrubs with the undergrowth (shrubs and other plants growing under the trees) outside the fence. You can see what an impact grazing has had on the vegetation here.

Continuing on, you will see a fence that parallels the right side of the road. It is part of the forest's grazing management program and divides the spring pasture from the summer pasture.

You will find stop 9 on your left, .7 miles ahead.



## 9. Clearcut

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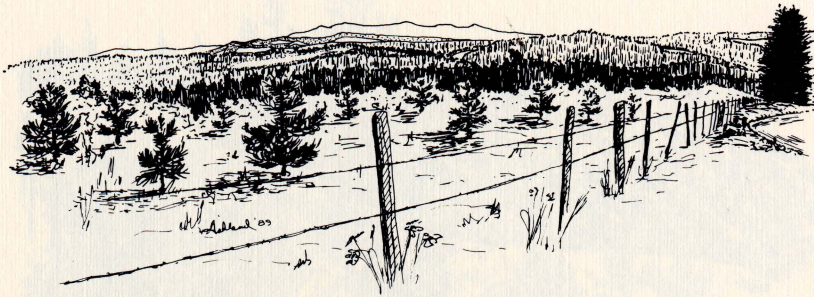
Clearcutting is an important forest management tool and is often the best way to regenerate a stand of trees. When an area contains trees of poor quality or a pocket of disease or insects, removing all of the trees helps to assure that the problem does not recur in the next crop. It is also a very economical way to harvest timber and allows new trees of high genetic quality to be introduced in order to increase forest productivity.

This clearcut was made in 1981 and planted to ponderosa pine in 1982. All of the timber that could be sold was removed. The leftover branches, logs and limbs—called slash—were left on the ground. After an area is cut, a seedbed is prepared by either burning or piling the slash. New trees are then planted.

Some cuts are made in narrow strips so that the trees growing alongside can seed the site and no planting is needed (remember walking through the strip cuts on the Hemlock Trail?).

Ahead .3 miles is an intersection. Turn right and continue .2 miles to Basalt Hill and your last stop.





## 10. Basalt Hill

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You are now on Basalt Hill, named for the rock that lies beneath it. Directly to the north is a 17-acre clearcut. Logged in 1982, the area was planted with Douglas-fir and ponderosa pine seedlings grown in the University of Idaho's Forest Research Nursery.

In order for the tiny new trees to survive, they must be assured of receiving enough light, water and nutrients. This means that competition from other plants must be temporarily reduced through a means of site preparation. Here, the site preparation was done with fire. A carefully controlled fire started under the proper weather conditions (called a prescribed fire), will temporarily set back most of the established plants, allowing the trees that will be planted an opportunity to begin their growth without being squeezed out.

As you look north over the clearcut, you will see the St. Joe Mountains in the distance. To their left, you will see the outlines of several large clearcuts put in by Potlatch Corporation on its Mt. Margaret property. A close look at the near ridge below the clearcuts will reveal the change in treeline height that marks the ponderosa pine plantation you drove through.

Now, follow the path that starts at the end of the road, paralleling the fence, until you come to a larger fence. This larger fence, erected in 1949 by the university and the Idaho Fish and Game Department, encloses 800 acres of the East Hatter Creek Unit of the Forest. Built for deer research, the enclosure has been the site of more than a dozen research projects and now encompasses the 250-acre Basalt Hill Natural Area. The fence doesn't keep deer in, but it does keep cattle out, and it provides a well-defined area for research. There is no hunting allowed within the enclosure.

If you would like to walk around in the enclosure, feel free to do so, but please remember to close the gate behind you.

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You have now come to the end of your tour. When you are ready to return, just retrace your route through Brown's Meadow and back to the highway.

If you do not wish to keep your tour brochure, please return it to the brochure box at the forest entry sign when you leave.

Thank you for visiting the University of Idaho Experimental Forest. Please come again.

If you would like further information regarding the Experimental Forest, please contact:

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