Harney County's timber is an asset for immediate exploitation Mills should be turning it out to aid in the reconstruction work of the nation. Investigate this virgin field.

The Times-Herald.

Harney county's rescources are attracting the attention of the entire West. Irrigation, stock raising, mines, oil and gas prospects and agriculture—all awaiting development.

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First Silo Is Being Installed In Harney Valley

The first silo to be erected in Harney Valley has been received and is being installed at the farm of Ralph Peabody on Poison creek a short distance east of Burns. This is an event in the history of the stock industry in Harney county and because of the wide use made of the silo in these days The Times-Herald deemed it of sufficient importance to devote considerable space in this issue to this improvement. The articles on this and other pages dealing with silage and the silo are all furnished by the west Coast Lumbermen's Association, except those otherwise signed or credited. Stockmen should read all these stories and consider the advantages of this modern method of feeding not only stock cattle, but beef and dairy cattle, sheep and hogs.

IF YOUR COWS COULD TALK—

—they would demand a silo. Not only because they relish the rich, succulent silage, but because it increases their usefulness to you.

A silo enables a cow to produce more milk without additional expense. It brings more money to the farm without additional investment. It saves tons of nourishing stock food that otherwise would go to waste. It turns this stock food into food for human consumption, every pound of which is needed this year.

The silo is the original instrument of food conservation. It is easy to buy. It is easy to build. It lasts a lifetime.

DOES SILAGE PAY? THESE FIGURES SHOW THAT IT DOES

Recently the experiment station of the New Mexico College of Agriculture conducted a series of tests to determine the feed value of silage in dollars and cents.

Two evenly balanced lots of cows were selected—four head in each lot. One lot was fed 15 pounds of alfalfa per head daily and 30 pounds of silage. The other lot was fed all the alfalfa hay they would clean up. Each lot was fed grain alike—one pound for each five pounds of milk produced. The experiment consisted of two feeding periods of 47 days each, with a seven-day intervals.

The following figures are the result:

	Cows fed with silage	Cows fed without silage
Cost of feed	$ 69.72	$ 88.87
Value of milk produced	121.38	119.34
Cost of milk per cwt	.931	1.178
Cost of butter per pound	.196	.255

Further conclusive proof of the value of a silo is provided by the result of an experiment recently conducted at Albert Lea, Minn., and reported by the silo publications of the International Harvester Company. In this experiment twelve herds of 216 cows were fed with silage and 16 herds of 239 cows were not given any silage. The results were:

	216 cows fed on silage	239 cows not fed silage
Pounds of milk produced	1,232,674	919,920
Pounds of butter fat	47,506	38,503
Value of butter fat	$14,023.52.	$11,056.23
Cost of feed	6,885.93	5,564.28
Net profit	7,137.59	5,491.95
The average per cow:	Silage fed	No silage
Pounds of milk produced	5,706	3,850
Pounds of butter fat	220	161
Value of butter fat	$64.92	$46.26
Cost of feed	31.90	23.28
Net profit	33.02	22.98

While the difference in the cost of feed for the silage-fed cows over the others was $8.62 per head the value of the butter fat produced by the silage fed cows was $18.66 per head more—a difference per cow in favor of the silo.

A similar experiment at the same station the second year resulted in a difference of $11.01 in favor of the silage-fed cow.

Anyone with a pencil and piece of paper can figure out how long it will take a silo at this rate to pay for itself.

WHY A SILO

The silo is the balance wheel of the modern stock farm. It absorbs the excess crop and keeps it in succulent, nutritious and palatable form against the time when feed is expensive or scarce.

The silo is to the farmer the same as the glass fruit jar is to the farmer's wife.

With a silo it is possible to have the equivalent of good pasture or good green feed every day of the year and thus keep the animals in constant good health and at their highest point of production.

The silo furnishes succulent feed for the winter months. Succulence stimulates the appetite, aids digestion, promotes health.

Silage, which is the name describing the contents of the silo, is relished by all farm animals and next to green, fresh pasture, is the most nutritious roughage that can be offered to livestock—especially to dairy herds and fattening cattle.

The silo supplements the pasture for the dry, summer months, avoids check in the growth of beef animals and prevents failure of milk flow in dairy cows when pasture dries up.

The silo provides one of the cheapest methods of storing food. The original cost is low. Its contents have a high food value per cubic foot. The loss in digestible matter in curing is low. Little labor is required in storing or feeding.

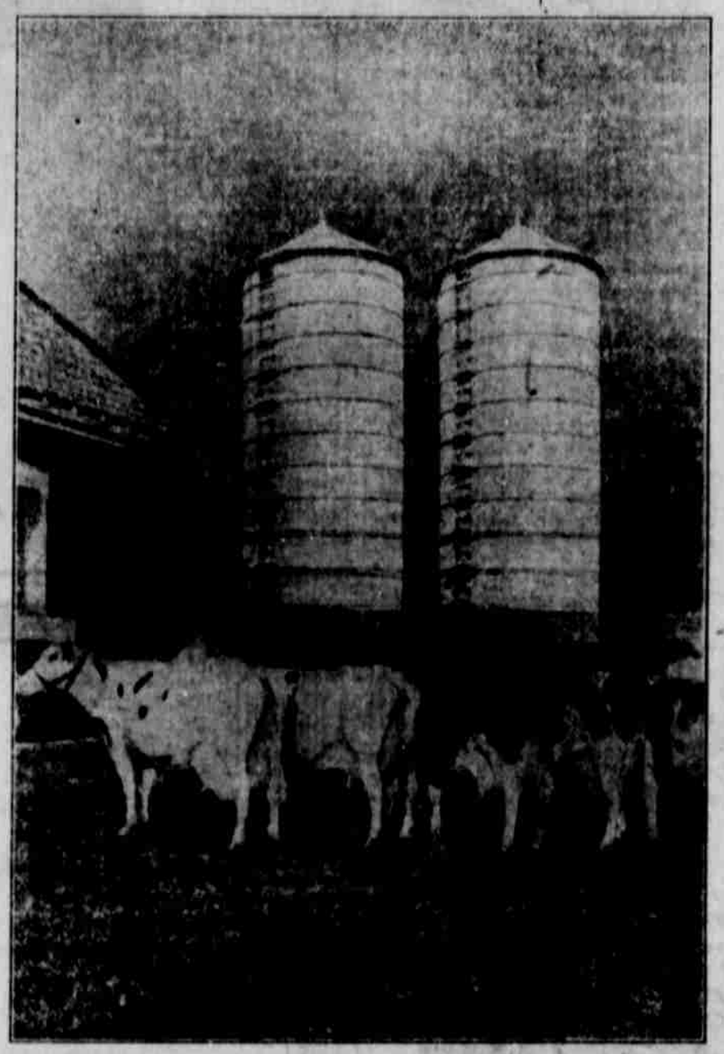
The silo often saves a crop otherwise damaged or entirely lost. Rains may prevent curing early cuttings of clover, alfalfe, peas, oats or grasses; early frosts may catch the corn. All can be saved by the silo. They can be put away regardless of weather conditions.

When the harvesting of silage is well organized and efficiently handled it is as cheap or cheaper to cut the material, pass it through the cutter into the silo than it is to cut the same material green from day to day and feed it whole to the stock.

It is estimated that only 60 per cent of the food value in a corn crop is contained in the grain and edible portions of the stalk. The farmer who is without a silo deliberately wastes the remaining 40 per cent.

A silo on a dairy farm saves 50 to 75 per cent of the amount of hay otherwise required.

There is no need for any farmer to be without a silo in these days when wood is easily obtained and the banks are ready to assist in financing those farmers who show enterprise enough to install them.



Group of silage-fed cows from farm of E. A. Stuart, president Carnation Milk Products Company.

SUNFLOWERS FOR SILAGE

(By C. L. Smith Agriculturist)

Although the sunflower (Helianthus Annus) is a native of North America and has grown in nearly every garden in the country, it is only in recent years that it has been recognized as a forage plant. The earliest record of sunflower cultivation is found in Spain, about 350 years ago.

It adapts itself to a wide range of soil and climate, responding to rich soil and cultivation much like the corn plant. It has been extensively cultivated for its seeds, which are very rich in oil. In this country the seed has been extensively used for poultry food. Owing to the abundance of oil in the seeds and the woody character of the mature stock many farmers in the middle west have grown sunflowers for fuel.

Owing to habitual use of oils and oily foods in Russia, more attention has been given to improvement of varieties there than elsewhere. Sunflower oil has been produced in commercial quantities in that country for the last hundred years. They have produced a number of varities somewhat different in character. The varieties that have proven most popular and seems best adapted to this country is a large, coarse growing sort with stripped seeds known as the Mammoth Russian.

In 1915 the Montana Experiment Station tried out in a small way the growing of Sunflowers under irrigation. The results were so promising that in 1917 they began some definitely planned work to test the relative returns from sunflowers planted in different ways.

The highest yield they secured from planting in rows 36 inches apart dropping the seeds 4 to 5 inches apart in the rows, using only five pounds to the acre. This gave yield of 44.1 tons per acre.

Bulletin No. 131, Montana Experiment Station, gives the following:

"In the light of four years' experience in growing sunflowers, it has been found that the most practical way of planting the seed is with the ordinary grain drill. A sufficient number of seed outlets should be stoped up to permit of planting only in rows 30 to 36 inches apart. The drill should be regulated so that the seeds will be droped 4 to 5 inches apart in rows. The set for this will vary with the different drills, but with a standard Van Brunt the desired distribution may be secured when the drill is set to plant four pecks of wheat to the acre. Planting in this way, rows 36 inches apart and seeds 4 to 5 inches apart in the row, will require five pounds of seed to the acre on the average. The largest yields were produced from the earliest plantings."

In Oregon and Washington some sunflowers were grown in an expermental way in 1918. The results were such as to stimulate interest and in 1919 a considerable acreage was planted for silage purposes. The yields were in a general way very satisfactory, varying from 10 tons per acre under dry land conditions to 50 tons per acre. In the higher altitudes, under dry farming conditions the average yields per acre were greater than any other crop.

Feeding Value

Whenever comparisons have been made with corn silage, the results indicate that ton for ton the sunflower silage has a feeding value equal to corn silage.

In Wallowa county where the average conditions are unfavorable for corn, about 200 acres of sunflowers were grown for silage in 1919. The largest yield reported was 40 tons per acre, the lowest, 10 tons per acre. The average for the 200 being slightly over 13 tons per acre. The farmers who fed silage the past winter are all enthusiastic regarding its value. The Wallowa County Farm Bureau has adopted the slogan, "One thousand silos on one thousand farms." It has been estimated that the feeding value of silage the past winter averaged $1,000 per silo.

In Deschutes County the results both in growing and feeding sunflowers have been so satisfactory that the Farm Bureau has inaugerated a strenuous and enthusiastic silo campaign. The First National Bank of Bend has volunteered to finance any farmer who wanted to build a silo. They have also secured several tons of choice sunflower seed, which is furnished to farmers at wholesale price.

In Klamath County a number of farmers have experimented with the wild sunflower which grows luxuriently on dry lands. They find that cut at the proper stage, it is relished and eaten greedily by all kinds of livestock.

The digestible nutrients in 100 pounds of sunflower silage is 21.4 total dry matter; 1.24 crude protien; 10.13 crude fiber, and nitrogen free extract, 0.37 ether extract with a nutritive ratio of 8.9 carbohydrate to 1 per cent of protien.

Corn silage has 26.3 dry matter; 1.1 crude protien; 15.00 crude fiber and free nitrogen extract; 0.7 ether extract, a nutritive ratio of 15.1 car-

(Continued on page five)

PICNIC AT VARIEN'S ENJOYABLE AFFAIR

Many People Gather at Hospitable Home on Sunday; Fine Dinner Served.

The beautiful farm home of Mr. and Mrs. Dan Varien on Prather creek was the scene of a very successful and enjoyable picnic on last Sunday. There were between 150 and 200 people there for dinner and while some left for Burns early in tht afternoon to attend the baseball game, others arrived later.

There was no formal program to spoil the day for the neighbors who gathered to spend the day in social talk and fun. There was an attempt at one time to spoil the afternoon by a talk from the county agent and the newspaper man, but that catastrophe was averted by Mrs. McDaniels threatening to start all the Ford cars to going in low gear if any further attempt was made to get either of the parties to talk. That settled it.

The Variens had expected to have as their guests the Sage Brush Embroidery Club with their husbands and a few invited friends, but this was changed later by the invitation being extended to the citizens of Burns and the surrounding country. Everybody who came provided something toward the picnic dinner and this proved the real feature of the day—so far as the newspaper man was concerned. It was just like in the days of childhood when a party meant "just eats", for without ice cream and cake no party was ever a success for a child. The table capacity was not sufficient to take care of the food provided and had to be extended twice before the lunch time arrived. The "eats" provided were absolutely the best it has been the good fortune of the writer to have a chance at for ever so long. There was everything that could be obtained and plenty of it. Because of the large number of guests it was necessary to serve cafeteria style and the plates were filled first with chicken, sandwiches, pickles, olives, salad, and other good things and then the guests were asked to return when that was exhausted for another helping or for desert which consisted of cakes of every description, pie, cookies and ice cream. It took over two hours to take care of the waiting hungry line of people and give the committee of ladies who looked after the serving a chance to get something to eat themselves. During the entire time there was a continual stream of good talk and good natured raillery among the neighbors gathered.

The young people enjoyed some music in the house where a piano was at their disposal and later they played on the beautiful lawn where the dining took place. There were groups of people all over the place having a good visit and really enjoying the affair.

A picture was secured of a large number of those present but it seemed impossible to get them all "round-

(Continued on page four)

Feeding and lambing "gummers' " on ensilage in Wallowa county

Cows waiting for their silage.