

EXPERTS INDORSE USE OF SUNFLOWER FOR SILAGE

Profitable Feeding of Livestock in District About Bend. Sunflower Is Corn's Great Competitor.

OREGON AGRICULTURAL COLLEGE, March 25.—Analyses of many Oregon-grown crops silages by the college experiment station chemists confirm the findings of livestock growers of the Bend district that sunflowers make a very profitable and satisfactory silage. Growers found that the stock eats it well and apparently prosper on it as an essential element of their ration, and the station analyses have determined definitely that the feed nutrients are there. Of the importance of those station findings Prof. J. N. Jones, station chemist, says:

"A fact of great economic importance is being slowly but surely accepted by dairymen and other livestock feeders of the Pacific coast—Many crops and crop mixtures other than of corn are being siloed successfully and fed profitably. With a more general acceptance this fact Oregon farmers will experience a competitive interest in the growing of silage crops, which will solve most completely the problem of succulent roughage."

The Bend soil and climatic conditions make possible the growing of a great variety of silage crops, with or without irrigation.

Sunflowers Flourish.

Sunflower silage may well compete successfully with corn in many parts of the Bend district. Sunflowers will grow and yield well under conditions too unfavorable for heavy crops of corn or some of the legumes exceptionally rich in protein that are often siloed with oats or wheat.

It was this fact, along with a desire to further the introduction of dairy and farm livestock as factors of diversified farming in some of the fertile regions such as the Bend district, that led to including sunflowers in the list of crops for silage in the silage analyses. Many crops have been sampled and sent to the college for analyses, and these have been made largely in the order of the economic importance of the kinds of crops received. On this basis sunflowers have come in for unusual attention, having been analyzed from eastern Oregon, the Willamette valley and the coast districts.

Other crops from eastern Oregon which have been successfully siloed are oats or wheat alone or in combination with field peas—a crop that grows remarkably strong in the grain growing districts. Use of vetch field peas, red clover, sweet clover and alfalfa comes from the desire to produce crops of the highest yield possible and to produce a silage as rich as possible in proteins, or growth-promoting compounds.

Legumes Are Prolific. In some sections of Oregon remarkable yields of vetch and field peas are obtained. Both plants are among the richest in proteins and produce a splendid silage in combination with oats and wheat, with one or the other of which they are commonly grown. That some legumes, as field peas and red clover, have been siloed successfully alone, while others, as alfalfa alone, generally develop abnormal fermentation products to a degree that renders it less valuable, if not totally unfit, for feeding purposes is probably due to the greater sugar content of field peas and red clover. The sugars are necessary to insure normal fermentation.

Acids of Silage Important.

The acids of silage although comparatively small in amount are of great importance, for they determine in a large measure its palatability. The actual percentage is variable ranging from 1.25 to 2.5. The kinds of acid developed are amount. In normally fermented silage are three—acetic (the acid of vinegar), propionic, and lactic (the acid of sour milk). Should butyric acid, (an acid of very disagreeable odor) develop to any extent whatever an off-flavored silage is the result. It takes but little of it to render the silage totally unfit for feeding purposes. Happily there is seldom any trouble of that kind except as noted above where attempts have been made to silo alfalfa alone or in combination. In normal fermentation the same acids develop and in approximately the same proportion, whether the crop siloed was corn, sunflowers or any of the combinations mentioned. In abnormal lactic acid is usually somewhat greater than the sum of the other two.

Other Constituents Considered.

In the process of making a normal silage the sugar content of the crops, which enter into its composition, is lessened. There are probably some deep seated changes in the proteins comparable to changes resulting in processes of digestion.

The mineral matter or inorganic constituents of the original crops remain unchanged, so also do the fats and the crude fiber. The essential changes are the partial hydrolysis (breaking up) of the proteins—a process which makes them more easily digested—and the fermentation of the sugars.

A number of silages have reached the chemistry department of the Oregon Agricultural College experiment station for analyses. Some results are presented in the following table of the analytical data, the terms of which are familiar to all feeders of livestock.

The large variation in the water content of the samples as received necessitates calculation of all analytical data to the dry matter to secure a basis for comparison.

TESTED COWS YIELD.

Cow-testing records show that the average production in testing associations that have been in continuous operation for five or more years in Oregon is 100 pounds more fat than the average in associations that have run irregularly. At present quotation this means a gain of \$68 per cow per year, says E. L. Westover, federal and college field dairy husbandman.

Had a Cold All Winter.

Colds that "hang on," coughs that rack your body and wear you down, the weakening that comes from loss of sleep—these are afflictions from which relief is a blessing. Nick J. Whres, Zahi, N. D., writes: "Had a cold all winter, but since taking Foley's Honey and Tar it has entirely disappeared." —Adv.

Just as Good.

Bobby, just home from his first visit to the country, was telling the folks of its wonders. "And say, ma," he said, "out on the farm they get milk from cows, and it's just as good as any." —Boston Transcript.

No Need to Repeat It.

Raymond had played until he was overly tired, and when he went upstairs to bed his mother called after him not to forget his prayers. Listening, she overheard the following, uttered in a sleepy voice: "Dear God: I'm awfully tired; so my prayer tonight is the same as last night and you remember what that was, Amen."

AGENTS STAND
 BY NEWSPAPER
 Support of the Oregon community newspapers was pledged by the county agricultural agent conference at the agricultural college in January in a resolution unanimously adopted. These resolutions took note of the news print scarcity and other high cost of production factors. In view of the large part played by the local papers in promoting community programs built around farm bureau work, the county agents went on record for their support. Cooperation in obtaining desirable advertising was one of a half dozen means mentioned for putting the resolution into effect.

GARDENS IMPORTANT FOR FOOD IN 1920

Gardens are going to be just as important the coming year as during the war period. High food costs, they say, are likely to remain until more to eat is grown and distributed. Farm gardens, village gardens, and city backyard gardens all will help. Food produced in the garden not only helps balance the family budget but releases that grown on farms for the use of people who are entirely dependent upon others.

With the lengthening of the days it will not be long until land can be worked, and such hardy crops as peas, onions, lettuce, radishes and beets planted.

Take a Chance on Early Planting. Irish potatoes are easily injured by freezing, but they require about a month to come up and may be planted at about the same time as lettuce and radishes. It pays to take a chance on the early planting of certain of the more hardy garden vegetables. If they are killed or severely injured they may be replanted. A good method is to make about three plantings at intervals of two weeks, and if the first planting is killed the later ones take its place.

High Prices May Cause Illness.

At this season of the year when fresh vegetables are so high many persons suffer from deranged digestion. If you feel dull and sluggish, or if you suspect indigestion or constipation you will feel better tomorrow if you take a Foley Cathartic Tablet tonight. They banish biliousness and headache. —Adv.

About Wood Engraving.

Wood engravings of high class are made almost exclusively of boxwood, and the large blocks are made of small pieces fastened together. The engraving is done across the end of the grain. Japanese wood prints are made on lengthwise sections of cherry wood parallel to the grain.

RED CLOVER SEED SHORT

No kind of seed probably has ever attracted the attention of two continents as has red clover seed in the past two years. During these two years the available supply has been lower than at any time since red clover has been extensively used in America. A short supply of some kinds of seed would hardly cause a ripple, but a short supply of red clover seed has brought about a veritable tempest because of the great agricultural and economic importance of the red clover crop.

The quantity of red clover seed available in this country at the present time appears to be a little larger than that available at a corresponding time last year, but considerably less than that of two years ago and undoubtedly much less than normal.

CLEARING METHODS CUT COST TO HALF

OREGON AGRICULTURAL COLLEGE, March 25.—Small farmers can clear 10 acres of logged off land a year in spare times without detriment to the usual farm work by the combined methods developed and tried out by H. D. Scudder, head of farm management at O. A. C.

"The cost of clearing can be reduced approximately 50 per cent, says Professor Scudder. "When it is considered that the cropped area of the state is not increasing, the need for development of new acreage can readily be seen."

The new and cheaper method is a combination of stump-pullers and powder with stump burners for the larger stumps.

Former methods have not only been costly but largely unsuccessful in promoting settlement of logged off lands. Just as soon as the cost mounted to \$100 per acre clearing largely ceased, because lands already cleared could be bought for less.

Actual cost sheets have been kept for the new method over a period of four years and show that the cost figure is not a mere guess.

Demonstrations of the new method will be made by the college in cooperation with county agents wherever sufficient interest warrants.

IF NO EGGS—MAYBE BIRDS ARE TOO OLD

There are people who have the right variety of fowls, who house and feed them properly, and yet who can not obtain eggs early in the winter because their fowls are too old. It

"Perhaps You Don't Know" says the Good Judge



That nearly every wise tobacco chewer got over the big chew idea long ago.

A little of the Real Tobacco Chew gives you more tobacco satisfaction and saves you money. Its rich taste lasts a long time.

Any man who uses the Real Tobacco Chew will tell you that.

Put Up In Two Styles

RIGHT CUT is a short-cut tobacco
W-B CUT is a long fine cut tobacco

Weyman-Broton Company, 1107 Broadway, New York City

seldom pays to keep hens for laying after they are 2½ years old; not that they will not give a profit, but that younger fowls will give a greater profit. A great many poultrymen who make a specialty of winter egg production keep nothing but pullets, disposing of the 1-year-old hens before it is time to put them in the winter quarters. The champion of the girls' poultry clubs of Mississippi keeps nothing but pullets.

Early hatched pullets, if properly grown, ought to begin laying in Octo-

ber or early November and continue to lay through the winter. Yearling hens seldom begin laying much before January 1 and older hens not until later. It is the November and December eggs that bring high prices. The laying breeds should begin laying when about from 5 to 6 months old, general-purpose breeds at 6 to 7 months, and the meat breeds at 8 to 9 months.

Four chairs at your service at the Metropolitan. No waiting.—Adv.

REPAIR SERVICE

With the most thoroughly equipped

Machine Shop
Welding Plant
Blacksmith Shop

in Central Oregon, we will accept practically any and all kinds of work

Guarantee on all work done and quick service

Call on us to do your machine work acetylene welding and general blacksmith work. We employ only experts in these lines

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Ship Your Livestock

TO

Oregon Live Stock Commission Company

A Company that will work for the welfare of Central Oregon Stockmen

Dealers in Cattle (grade and stock), Sheep & Hogs

North Portland, Oregon

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REDMOND, OREGON

Exclusive Agents for Northwest Auto Co. for Deschutes, Crook and Jefferson Counties

Selling

Marmon-Cole, Reo and Dort Cars Bethlehem, Indiana and Duplex Trucks

Your Creamery Builds Business for Yourself

The Central Oregon Farmers' Creamery Will Pay One Cent Above the Market Price for Butterfat Paid by Portland Creameries

Yearly Market Fair, Honest Tests.

The Creamery Should be Your Asset.

Bring in Your Cream

Central Oregon Farmers' Creamery

Dr. Hess Stock Tonic
 A Spring Conditioner and Worm Expeller

Spring Is Here. Soon the litters of pigs will be coming, the calves, the lambs, and the colts will be dropped. Feed your brood sows Dr. Hess Stock Tonic before and after farrowing. It makes the bowels active, relieves constipation, promotes good health and good digestion which means healthy pigs and a mother with a milk supply to nourish.

Condition your cows for calving by feeding Dr. Hess Stock Tonic before freshing. Then feed it regularly to increase the flow of milk. It lengthens the milking period.

Give your brood mares a course of Dr. Hess Stock Tonic. And your work horses. It puts your team in fine fettle. You cannot afford to plow, harrow, sow, mow, reap or team with a team out of sorts, low in spirits, rough in hair, blood out of order, or full of worms. Dr. Hess Stock Tonic is good for sheep—especially good for ewes at lambing time.

Why Pay the Peddler Twice My Price?

For Sale by
MAGILL & ERSKINE
 Druggists
 BEND, OREGON.

Tell us how much stock you have. We'll tell you how much Tonic to buy.

Dr. Hess Instant Louse Killer Kills Lice