

THOUSAND HEADED KALE.

Has Proven Valuable for Feed During Winter Months.

By H. D. Seudder, Oregon Agricultural College, Corvallis.

This kale is chiefly valuable as a green feed for hogs, cows or poultry through the winter from November or October to April. The better types of plants endure the Willamette valley winter weather without injury, yielding from 30 to 40 tons of succulent and nutritious green feed per acre under favorable conditions. It may also be grown for summer green feed, although less successfully.

A deep, well drained, rich loam soil is best for this crop but the ordinary valley clay loam soil, if well drained, thoroughly tilled and heavily manured, will produce excellent yields. If possible a long, narrow, slightly sloping field, running lengthwise of a piece of sod ground, or a wide sodded fence row, or one of the farm lanes is preferable, as this permits easier hauling during the wet winter weather.

The kale ground should be heavily manured and deeply plowed in the fall if possible and re-plowed once early in the spring and again before transplanting. If the fall plowing cannot be done, manuring during the winter and spring and deep early spring plowing repeated twice before transplanting, will put the ground in good shape. Following the second plowing the ground should be kept clean of weeds and thoroughly mulched to conserve the moisture, by frequent light harrowing until transplanting time.

For transplanting the seed should be sown in drill rows about three feet apart, as early in March as it is possible to get on the ground. If possible a strip of the best drained ground on the farm should be used for growing the young plants and this should be manured and plowed in the fall so that it need only be re-plowed and worked down at once for the seed in the spring, thus getting the plants started as early as possible. One pound of seed will furnish enough plants for an acre.

Transplanting should be done about June 1st, if possible, when the plants are six to twelve inches high. Later transplanting is liable to be held back by the dry weather so much as not to be ready for cutting in early fall. With the ground in fine tilth, transplanting of small acreages may be done rapidly by hand with a long bladed spade, care being taken not to injure the roots in taking them up from the drill row, and replacing them in the new ground. They should be placed three feet apart each way, covered a little deeper than in the drill row, the soil firmed around them with the foot and later when wilted down, the whole field should be rolled. Plants should be left every three feet in the original drill rows and all extra plants saved for replacing those that may not survive transplanting.

Transplanting of larger acreages may be done by plowing and placing the plants three feet apart in every third furrow, covering the roots but not the leaves, with the next furrow turned and following the day's work with a roller. Missing plants may be replaced later by hand. Instead of transplanting the seed may be dropped in hills three feet apart each way, several seeds to the hill, as early as the ground can be thoroughly prepared. Later each hill should be thinned, leaving one vigorous plant. As a rule this method does not give as good yields as transplanting.

After transplanting or thinning the field should receive frequent shallow cultivation to conserve the moisture until the plants branch out so far as to prevent further tillage.

In October or November after the green corn has all been fed the kale, although not fully grown, will be ready for feeding. The plants should be cut off at the ground with an axe or shash, and the entire plant tossed onto the wagon or sled and hauled to the feeding place. Enough may be cut at one time for one or several days' feeding. Frozen kale should be allowed to thaw before feeding. Where it is thought the older plants may taint the milk they should be fed immediately after milking. Forty pounds of kale per day with 20 pounds of good hay, such as vetch and oats, fed in two portions, makes an ideal ration for milk cows, very little or no mill feed being needed. The kale may be fed as needed clear through the winter until April or later. For summer feeding seed may be fall sown and transplanted early in the spring, being ready, under favorable conditions, for cutting during July, August and September. Unless the ground could be irrigated, however, once or twice, the yields are not so heavy at this season.

Stripping of the lower leaves of the kale as a regular practice is not recommended as it is extremely laborious, especially during wet weather, puddles the soil badly and causes the stripped plants to suffer from frost. However, where green feed runs short in September the larger lower leaves of the kale may be stripped off for feeding at this time and later as wet weather comes on and the plants grow larger it pays to abandon this stripping and cut the entire plant with an axe.

As well bred seed cannot as yet be secured upon the market it is import-

ant that the grower should select five or ten of his very best plants and let them go to seed. From 20 to 50 different types of kale plants have been grown from one small packet of commercial seed, the majority, however, are worthless. To get good seed the grower must select a good parent plant; those of good size, weighing from 40 to 50 pounds each, with a medium sized, smooth green leaves, the main stem branching out close to the ground into innumerable stems and leaves in all stages of growth. Only plants which go through the severest frosts without any injury should be selected. These plants selected during the first year should be transplanted early in the spring the second year in some fertile spot where they will not be cross pollinated by other kale plants, wild turnips, rape, mustard and similar closely related plants. The seed will be formed this second year and should be harvested when the plant has dried out and the seeds are brown and threshed out by hand over a canvass. One good plant will furnish sufficient seed for about an acre of kale plants.

A report of your success or failure in growing kale, with a description of your method and conditions, would be greatly appreciated by this station. Kindly address such report to the Department of Agronomy, Oregon Agricultural college, Corvallis, Oregon.

Notes on the A.-Y.-P.

Enough electricity will be used in the decorative features of the Alaska-Yukon-Pacific exposition to supply all the needs of a city of 40,000 inhabitants.

Eight hundred thousand eight-candle power incandescent lamps are used in the decorative features of the Alaska-Yukon-Pacific exposition, which opens in Seattle on June 1.

The Great Northern railroad estimates that not less than 1,000,000 persons bound for the Alaska-Yukon-Pacific exposition in Seattle this summer, will be handled through St. Paul alone.

The government is spending \$600,000 that it may give due representation to Alaska, Hawaii and the Philippines at the Alaska-Yukon-Pacific exposition which opens in Seattle June 1.

The Alaska-Yukon-Pacific exposition will be ready to open on May 1, one month before the day fixed for its formal opening. It is the first exposition to make good upon its original "first day."

Canada is spending \$100,000 for a building at the Alaska-Yukon-Pacific exposition and for the installation of its famous permanent exhibit, which is now en route from the Franco-British fair in London.

The sockeye salmon run will be on in Puget Sound during the Alaska-Yukon-Pacific exposition and a fully equipped cannery will show why it is Washington provides the world with most of the salmon.

The Alaska shaft, which towers eighty feet in the center of the Alaska-Yukon-Pacific exposition, will be covered with gold leaf hammered from Alaskan nuggets contributed by enthusiastic "sour doughs."

The United States government will carry on experiments with submarine torpedo boats at the Alaska-Yukon-Pacific exposition in Seattle. The work will be done in one of the beautiful lakes upon which the exposition grounds lie.

The California Promotion committee has completed the California state building, a modified Mexican hacienda, which will be one of the most remarkable buildings of the Alaska-Yukon-Pacific exposition, which opens in Seattle June 1.

Query. Why cannot black powder be substituted for dynamite in blasting work?

Answer. Black powder may be and frequently is used for blasting purposes. The chief disadvantage, however, lies in the fact that it is not nearly as strong as the higher explosives and consequently more of it must be used to do the same amount of work, which necessitates the drilling of a larger hole. In some cases a small hole is put down, the bottom of which is enlarged by exploding a small charge of dynamite and the cavity so made loaded with black powder.—F. S. Thomson, Washington State College, Pullman.

Q. I have a cow that has an abscess on her side, due to some cause not known to me. I wish to have this animal tested before using the milk. The abscess was opened four weeks ago, but is not healed yet. Will you please tell me what course to pursue to protect my herd against any such disease as tuberculosis?—J. S.

A. From the description you give me I do not think that the cow has tuberculosis. I am rather inclined to think it is a case of local inflammation. It is likely that the cow will be all right as soon as the abscess heals.—Washington State College, Pullman.

Q. Are there any high explosives which do not need thawing before being used?

A. Yes; but so far their use has not been general, due to the common belief that such powders are unreliable and that "missed holes" are likely to result from their use. If you will write me privately I will give you the names of some of these.—F. S. Thomson, Washington State College, Pullman.



Reel for Clothesline.

A West Virginia man has an invention that will lighten the labors of the maid-of-all-work and the washerwoman and turn the taking down of the humble clothesline into an artistic operation. This man has devised a reel on which the line can be gathered quickly and neatly, and she who presides over the family wash will no longer have to loop the rope over the thumb and elbow. The reel is in the form of a huge spool or iron framework, with a handle in the center by which it may be held and another handle at one end by which it may be turned. The line is fastened to a V-shaped bend in the hub and rolled over the reel with neatness and dispatch. If the line is wet the open framework gives it a better chance to dry than when it is folded in the old way.

Line Reel.

One gallon of water, one quart of soaked split pea soup, one quart of soaked split peas, half a pound of salt pork, one pound of beef. Put over the fire, seasoning with salt and pepper, celery salt, sulphuric, curry powder, marjoram or savory; let it boil slowly for two hours, or until the quantity of liquor does not exceed two quarts. Put into a colander and press the peas through with a spoon. Fry two or three slices of stale bread in butter until brown, scatter in the soup in the tureen.

Dried Split Pea Soup.

Melt a quarter of a pound of butter, the same quantity of lard; mix them with a quarter of a pound of brown sugar, a pint of molasses, two tablespoonfuls of ginger and a quart of flour. Dissolve a couple of teaspoonfuls of saleratus in a wineglass of milk and strain it into the cake—add sufficient flour to enable you to roll it out very thin; cut it into small cakes and bake them in a slow oven.

Ginger Snaps.

Mix three teaspoonfuls of sugar with one and a half of butter. When white, beat three eggs and stir them into the butter and sugar, together with three teacups of sifted flour, and rose water or essence of lemon to the taste. Dissolve a teaspoonful of saleratus in a teacup of milk, strain it into the cake, then add three more teacups of sifted flour. Bake the cake immediately either in cups or pans.

Cup Cakes.

Put two tablespoonfuls of flour and a little salt in a bowl, and half a pint of water, a little at a time; work it very smooth, put it into a saucepan, let it come slowly to a boil, stirring often. When it has boiled a minute or two add by degrees two ounces of butter, stirring all the time until it is entirely incorporated with the flour and water; boil up once and season to taste.

Drawn Butter Sauce.

Put two tablespoonfuls of flour and a little salt in a bowl, and half a pint of water, a little at a time; work it very smooth, put it into a saucepan, let it come slowly to a boil, stirring often. When it has boiled a minute or two add by degrees two ounces of butter, stirring all the time until it is entirely incorporated with the flour and water; boil up once and season to taste.

Stuffed Prunes.

Steam prunes until tender, but not broken. Then pit and fill cavities thus formed with chopped nuts, raisins or dates. Return the liquor drained from fruit to the fire, bring to a boil, and stir into it one-half-box of gelatin dissolved in one-fourth cup of cold water. Pour this around prunes, then stand in a cold place to harden. Serve with sweetened cream.

Queen Cake.

Beat one pound of butter to a cream with some rose water, one pound of flour dried, one pound of sifted sugar; beat all well together; add a few currants washed and dried; butter small pans of a size for the purpose, grate sugar over them. They are soon baked.

Oatmeal Bread.

Put two cups rolled oats to soak at noon in one quart of hot water. Let stand until night. Add two-thirds cup molasses, about two tablespoons salt, yeast cake and one quart flour. This makes two loaves.

Coffee Cake.

This is nice without eggs. One-half cup of sugar, one-half cup butter, one-half cup molasses, one-half cup raisins, one-half cup coffee, one and one-half cups of bread flour, one teaspoon soda.

Griddle Cakes.

One and one-half pints of flour, one-half teaspoon baking powder; water to make thin batter.

To Build You Up for Spring

Begin taking Hood's Sarsaparilla today. It will do you good. The heavier living and closer confinement of the winter, the effects of colder, damp, changeable weather on the pores of the skin, and the harder work of this season are probably telling on you.

Hood's Sarsaparilla, taken just now, will give your system just what it needs and must have, and will help you over this hard spot—the rough ground, as it were—and quite likely save you from a serious illness later.

"A stitch in time saves nine" is a wise old saw; therefore, don't wait, but begin to take Hood's Sarsaparilla now. It purifies and enriches the blood, restores the appetite, and gives health and strength.

It effects its wonderful cures, not simply because it contains sarsaparilla, but because it combines the utmost remedial values of more than 29 different ingredients, each greatly strengthened and enriched by this peculiar combination. These ingredients are the very remedies successful physicians prescribe for the same diseases and ailments.

Begin taking Hood's Sarsaparilla today. Get it in the usual liquid form or in chocolate tablets known as Sarsatabs. 100 Doses One Dollar.



PINK EYE DISTEMPER CATARRHAL FEVER AND ALL NOSE AND THROAT DISEASES

Cures the sick and acts as a preventive for others. Liquid given on the tongue. Safe for brood mares and all others. Best kidney remedy; 50 cents and \$1 a bottle; \$5 and \$10 the dozen. Sold by all druggists and horse goods houses, or sent, express paid, by the manufacturers.

SPOHN MEDICAL CO., Chemists, Goshen, Ind.

MAPLEINE A Flavoring. It makes a syrup better than Maple. Sold by grocers.

Simplified.
Slug 47—How do you spell—
Old Fashioned Proofreader—Any way you please. All rules of spelling have been abolished.

Only One "BROMO QUININE"
That is LAXATIVE BROMO QUININE. Look for the signature of E. W. GROVE. Used the world over to Cure a Cold in One Day. 25c.

Side Lights on History.
Amelia Bloomer had invented the costume that bears her name.

"I wanted to make something as unlike the sheath gown as possible," she explained.

This also explains why it never became popular among our society leaders.

FITS St. Vitus' Dance and nervous diseases permanently cured by Dr. J. Lee's Great Nerve Restorer. Sent for FREE \$2.00 trial bottle and treatise. Dr. B. H. Kline, L.D., 361 Arch St., Philadelphia, Pa.

Nothing Doing.
Floorwalker—Can I do anything for you, madam?

Mrs. Kleptomeyer—No, thanks, I don't wish to buy. I'm just out shopping.—Judge.

Pettit's Eye Salve 100 Years Old, relieves tired eyes, quickly cures eye aches, inflamed, sore, watery or ulcerated eyes. All druggists or Howard Bros., Buffalo, N. Y.

Ceremony Omitted.
The king of the hobos, who was on his travels, had just met the king of the Cannibal islands.

"Well," they said, as they looked at each other, "I guess we won't kiss."

Pneumonia and Consumption are always preceded by an ordinary cold. Hamlin's Wizard Oil rubbed into the chest draws out the inflammation, breaks up the cold and prevents all serious trouble.

How the Trouble Started.
Publisher—Surely it ought to be possible to make good print paper out of cornstalks.
Mill Owner—Your wish, sir, is fodder to the thought.

Mothers will find Mrs. Winslow's Soothing Syrup the best remedy to use for their children during the teething period.

Wronged.
"Of course, you got the copyright," they said, "on your famous song."
"I did not," said the luckless writer; "They printed my copy wrong!"

Free Entertainment.
Mrs. Mooner—I always make it a point to go shopping early in the morning.

Mrs. Spooner—To avoid the rush?
Mrs. Mooner—No; I like to listen to the shop girls telling each other their dreams.

Home Made Blood Purifier.
The best blood building prescription known is as follows: To one-half pint of good whiskey add one ounce syrup sarsaparilla and one ounce Toris compound, which can be procured from any druggist. Take in teaspoonful doses before each meal and before retiring.

A Definition.

Cobb—What's the difference between vision and sight?
Dobb—See those two girls across the street?
Cobb—Yes.
Dobb—Well, the pretty one I would call a vision, but the other one—she's a sight.

PISO'S

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is dreadful to suffer and despairing to hear. Why threaten the health of your lungs and the peace of your family when you can obtain immediate relief from PISO'S CURE? Remarkable results follow the first dose. Taken regularly it soothes and heals the lacerated tissues, loosens the clogging phlegm and stops the cough. Pleasant to the taste and free from opiates. Children enjoy taking it. For throat and lung diseases, no matter how far advanced,

PISO'S CURE IS INCOMPARABLE

CURE

25 cts.

Police!
"You hire a man to watch your premises for a dollar a night, do you?"
"Yes, and he's a pretty good dollar watch, too, if anybody should ask you."

Feminine Lack of Logic.
Tell a wife that men are selfish, she will readily acquiesce. But tell that same woman that by spoiling her boys—whether in the nursery or at school, or university—she is sowing the seeds of egotism, she will give an emphatic denial.

Just the Opposite.
The motorist came out of the garage all bedecked in bearskin and goggles. "I'm out for a fast spin," he remarked as he pulled on his gloves. "They say a speed of 70 miles an hour is a tonic for the nerves when they are run down."

"I haven't noticed it," said the stranger who was passing.
"That's queer. And you own a car?"
"No, I'm a pedestrian."

The Corn Crib.
The corn crib should be narrow and slatted on the sides and ends so that a free circulation of air is possible in all directions. Some farmers place hollow crates in the cribs as they are filled, so there will be no heating or spoiling in the center of the mass. Heating destroys the corn germ.

Hard Subbie.
Gunner—He used to be a pessimist and say the world was a bubble. I understand he has changed his opinion.
Guyer—Yes; you see, he fell out of an airship not long ago.

By Being Fired.
"Ruggles, how did you catch that cold?"
"Well, I'll tell you, Ramage. I lost my job the other day. It was the first time such a thing has ever happened to me, and I got kind o' reckless, you know, and exposed myself, and—and—"
"I see. You caught it on the first bounce."

Expert Judgment.
"I sometimes think," remarked the regular patron, "that the snare drummer should be the best musician in the theater orchestra."
"He usually is," said the drummer.

PILES CURED IN 6 TO 14 DAYS
PAZO OINTMENT is guaranteed to cure any case of Itching, Blind, Bleeding or Protruding Piles in 6 to 14 days or money refunded. 50c.

Shining Target.
Stranger—You little boys seem to like that old gentleman?
Little Boy—Yes, he furnishes us with so much amusement.
Stranger—But he seems in such a cross humor.
Little Boy—Yes, but he is the only old gentleman in this part of town that wears a tall silk hat during the snowball season.

Unsolicited Testimonial.
Rivers had taken Brooks out to luncheon.
"Ever eaten at this place before?" asked Brooks, sawing away on his steak.
"O, yes; a few times," answered Rivers, trying to find a piece of chicken that was tender.
"Serves you right, then!"