

The Slogan Pages Are Yours; Aid In Making Them Helpful to Your Wonderful City and Section

# SALEM DISTRICT INDUSTRIES

## EIGHTH CONSECUTIVE YEAR

THE DAILY STATESMAN dedicates two or more pages each week in the interests of one of the fifty-two to a hundred basic industries of the Salem district. Letters and articles from people with vision are solicited. This is your page. Help make Salem grow.

### BOYS AND GIRLS IN THE PUBLIC SCHOOLS KNOW USES OF LEGUMES

Eleven weeks ago it was announced that The Statesman would pay \$5 a week, till further notice, to the high school or grade school boy or girl in Marion or Polk county who would submit the best article on the current Slogan subject. The articles are to be in the office (or mailed) by noon of Tuesday of the week of the Slogan subject. All articles submitted to belong to The Statesman. The editor to judge as to the best, in deciding who shall receive the \$5. The idea is to furnish an opportunity to make the rising generation acquainted with the many and great advantages of the district in which they are to take active part in the future. They are to be the leaders as they grow into manhood and womanhood. There was one contestant the first week, 7 the second, and 5, 7, 11, 3, 4, 5, 3 and 7 respectively the following weeks. There are eight this week. The \$5 goes to Frances Klampe, and Helen Burk and Deena Hart are to have a ticket to a moving picture show—any moving picture show selected, at the Oregon, Elsinore or Capitol. There will likely be surprise prizes most weeks. One other thing. The Statesman wants the photograph of the first prize winner each week. If the winner has no photo, please go to the Kennel-Ellis studio, 429 Oregon building, Salem, and have one taken, at the expense of The Statesman. When a few photos are in hand, cuts will be made of the first prize winners, to be printed in The Statesman; and perhaps in other papers. The boys and girls will please write on only one side of the paper. The following are the articles for this week:

### PROFITABLE CROPS ONLY ON GOOD SOIL

Editor Statesman:

Legume may not be a very common word but it is the name of a common and important crop of plants. This plant group gets its name from the peculiar pod which forms the seed case for these plants. The family includes a wide variety, such as clover, alfalfa, lentils, vetches, cow beans, soy beans, and locust trees.

Just as our bodies need food containing the important element, nitrogen, to build up their tissues, so these important plants also need it. Under certain conditions this group has a special way in which it takes the free nitrogen from the air. On the plant roots are nodules, which are the homes of a particular kind of bacteria. No other plants can thus take free nitrogen from the air.

There are several distinguishing features of the legume family. The blossoms are one sided and grow in clusters, while seeds of two parts, called cotyledons, are formed in a pod. But the little, wart like lumps on the roots, called tubercles or nodules, are perhaps the most prominent; for it is in these that the nitrogen compounds are formed, which not only enable the plant to grow, but leaves the soil enriched when the plant is removed.

The blossoms of certain leguminous plants are very attractive. The wisteria, hickory, sweet pea, and the locust and redbud, trees are noted for their ornamental beauty.

**Beneficial Uses**  
Peas, beans and lentils are extensively used for food, having high protein value. Alfalfa, clover and vetch are among the leading hay crops. Alfalfa can be grown successfully in this section, and more of it should be raised, as it is a very profitable hay crop. The farmer may expect from five to seven tons of cured hay each season from an acre.

Legumes are also useful as green manure. The crop is plowed under in order that it may decay and build up the soil. The nitrogen is left in the soil in a form which other kinds of crops can use.

One of the most outstanding uses of the legumes, however, is to aid the farmer in rotation of crops. There is no need for soil to become worn out, when a systematic rotation of grain and leguminous crops may be used to keep it in good condition. More profitable results, in farming are obtained as a result of such a practice.

The farmers of the Salem district, or any other district, for that matter, may expect to raise profitable crops only to the extent that they keep the soil in condition. For this purpose fertilizers must be used. As nitrogen is one of the most expensive elements in purchased fertilizers, it is evident that frequent use of leguminous crops is an economical way of supplying the necessary nitrogen to the soil.

Furthermore, the legumes are profitable crops in themselves, as

any farmer who gives them a fair trial will very readily see.

—Frances Klampe,  
8th Grade Labish Center School,  
Salem, Ore., Rt. 9, Box 79,  
April 12, 1927.

### FARMING MUST BE BUILT ON LEGUMES

Editor Statesman:

Farming, in a broad way, to be successful must be built on legumes. Every farmer should be a legume farmer, for to grow crops successfully the soil must be fertile and to be fertile it must contain nitrogen. This is how legumes are valuable; they belong to a family of plants on whose roots are found little wart like tubercles. These tubercles contain nitrogen, which is gathered and stored in this way; air filled with atmospheric nitrogen circulates through the soil. As it passes through the bacteria composing the tubercles take out the nitrogen and hold it as a food for the plant itself and other plants coming after.

Great quantities of nitrogen can thus be stored in the soil and since nearly one-half of the cost of commercial fertilizer comes from nitrogen it is of advantage to the farmer to grow alfalfa, clover, cow peas, soy beans, vetch, or other leguminous crops to do away with the buying of costly nitrogen.

**Excellent Stock Feed**  
In addition to being nature's soil improver and highly valuable in this way, legumes are rich in protein and are excellent feed for sheep, cattle, swine, horses, etc. They may be made into silage and kept until needed, or dried and fed as hay. They may also be planted as pasture crops.

Alfalfa should be sown in good, mellow soil, either in early fall or early spring. When the soil is acid alfalfa will not grow unless this acidity is corrected by the application of lime.

Clovers, alsike, white and red, require much the same treatment. Any soil not too loose is satisfactory. It is sown usually in rotation with some other crops, such as corn and oats. It is practical to sow clover in the late summer and early autumn months. It is not advisable to pasture a clover field, as the tramping of the soil by stock makes it too compact and heavy.

Soy beans and cow peas both need warm soil, and consequently are raised more in the south than here. They may furnish grazing for cattle, sheep or hogs, or may be dried for hay.

Vetches are excellent land renovators and flourish best. They are used considerably for forage, but the hay is as nutritious as clover and relished much more.

These are some of the principle legumes. Salem territory could hardly grow too many, because they benefit the farmer in so many ways.

—Helen Burk,  
1620 Lee St., Salem, Ore.,  
April 12, 1927.

1926 lumber cut of Oregon and Washington shows increase of about nine per cent over 1925.

### Dates of Slogans in Daily Statesman (In Weekly Statesman)

(With a few possible changes)

Loganberries, October 7, 1926

Prunes, October 14

Bakery, October 21

Flax, October 28

Filberts, November 4

Walnuts, November 11

Strawberries, November 18

Apples, November 25

Raspberries, December 2

Mint, December 9

Beans, etc., December 16

Blackberries, December 23

Cherries, December 30

Pears, January 6, 1927

Gooseberries, January 13

Corn, January 20

Celery, January 27

Spinach, etc., February 3

Onions, etc., February 10

Potatoes, etc., February 17

Bees, February 24

Poultry and Pet Stock, Mar. 3

City Beautiful, etc., March 10

Great Cows, March 17

Paved Highways, March 24

Head Lettuce, March 31

Silos, etc., April 7

Legumes, April 14

Asparagus, etc., April 21

Grapes, etc., April 28

Drug Garden, May 6

Sugar Beets, Sorghum, etc., May 13, 1927

Water Powers, May 20

Mining, June 3

Land, Irrigation, etc., June 10

Floriculture, June 17

Hops, Cabbage, etc., June 24

Wholesaling and Jobbing, July 1

Cucumbers, etc., July 8

Goats, July 22

Schools, etc., July 29

Sheep, Aug. 5

Seeds, August 12

National Advertising, Aug. 19

Livestock, August 26

Grain and Grain Products, September 2

Manufacturing, September 9

Automotive Industries, Sept. 16

Woodworking, etc., Sept. 23

Paper Mills, September 30

(Back copies of the Thursday edition of The Daily Oregon Statesman are on hand. They are for sale at 10 cents each, mailed to any address. Current copies 5 cents.)

### THIS WEEK'S SLOGAN

DO YOU KNOW that Salem is the center of a district in which the legumes do wonderfully well; that no country can grow better red or sweet clover, or better vetches or field peas; that alfalfa does well here; that the orchardist may grow here the finest of cover crops in legumes; that the dairyman may grow the best legumes for his uses; that the bee keeper may raise sweet clover and other legumes for bee pasture to his heart's content—that, in short, the farmer of this district now has the knowledge in his noodle of the great value of the nodules on the rootlets of the legumes; and that he is using this knowledge for his own good and the good of this district in general; and that we have a very healthy and most hopeful and beneficial boom in legumes?

### PLANTS THAT GET NITROGEN FROM AIR

Editor Statesman:

Many a piece of farm land that was once very valuable lies uncultivated now. The land is useless because it is worn out. Year after year, crops have been planted that took plant food from the soil, and the farmers replaced nothing. By the planting of legume crops this valuable food is replaced. Rotating crops helps worn out land, but even that is useless if the two valuable plant foods, nitrogen and humus, are absent.

Humus is decomposed vegetable matter that nature uses to check the greed of man. Otherwise man would soon starve to death if he was not protected from his own greed.

Nitrogen, one of the most necessary elements of plant life, is the most unstable and costly. The soil supply of nitrogen is light because nitrogen has escaped in vast amounts during the past ages.

Nitrogen is in the air, but few plants can collect it from there. It must be in the soil where it is easily collected by the root tendrils. Plants that can get nitrogen from the air are called legumes. These embrace the clover, alfalfa, vetches, peas, beans and others of less value. The bacteria which store the atmospheric nitrogen are formed in tiny nodules on the feeding roots of the legume plants.

When a field is cut over, the roots decay and leave in the soil the bacteria and nitrogen that they have gathered.

If clovers are allowed to grow to maturity before they are har-

vested, the lower leaves and tendrils decompose and return to the soil as humus.

—Deena Hart,  
1192 Shipping Street, Salem, Ore.,  
April 12, 1927, Sophomore, S. H. S.

### LEGUMES FOR A ROTATION CROP

Editor Statesman:

When did rotation of crops begin? It is accounted for clear back in the feudal system and further back than that it is not definitely known.

We mean when we say rotation of crops: the planting of different plants that will restore food material to the ground. Some plants take all the nitrogen, phosphorus and potassium out of the soil which are needed for plant life.

Manure is used on the farms quite a bit. However, not everyone can get manure. It does not really contain enough of these food plants, so other substances should be scattered on or mixed with it.

Leguminous plants restore all the food material and can be all used very well for different things. The main leguminous plants are alfalfa, peas, beans, lentils, vetch, blue bonnet, locust, and red bud tree.

Little things like warts are found on the legume plants. These are the food material, or germ so often called.

Alfalfa can be grown upon a

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plot of land for two or more years. This makes the soil very rich in food material. If potatoes are then planted there they will be very large and generally of an even shape.

It is hard to get a good stand of alfalfa in just two years, but it could be used for grazing of cattle or sheep.

All these legumes can be raised profitably and profitably in this Willamette valley. A large acreage should be planted.

—Esther Cook,  
1234 Court St., Salem, Ore.,  
Apr. 12, 1927.

### THE IMPORTANCE OF THE LEGUMES

Editor Statesman:

The legume family of plants, is the second largest family of flowering plants, various members of which are of great economic importance in all parts of the world. Some, such as peas and beans, are valued as food plants. Others are used for medicine, dyes, timber, wood, ornaments.

All have the strange and interesting power of getting nitrogen through small bacteria colonies on their roots. The power of bringing nitrogen to the soil also makes many of the legumes valuable as green manure, and for cover crops for the improvement of poor soils. There are about 7,000 species of leguminous plants known. Most of them, whether trees, shrubs, or herbs, bear their seeds in pods or legumes and from that comes their family name. The scientists call this leguminosae. One large order in this family bears flowers which resemble butterflies. The common sweet pea belongs to that order. There are other legumes which bear irregular spreading petals and flowers; still others bear blossoms small and regular.

The most common legume that we have in the Willamette valley is the vetch, which is most suited to this soil and climate. Alfalfa also thrives in the valley near the river bottoms, where the soil is open and porous. Cow peas are also grown in the valley on many of the farms. This species is also used for green manure to fertilize poor soil.

The alfalfa is the strongest species of legumes. It is a perennial plant and yields from three to four crops a year, and sometimes lasts as long as 20 years, but ought to be plowed when it gets weedy, and a cover crop planted in its place.

—Donald Sademan,  
Salem, Ore., Rt. 6, Box 117B,  
April 12, 1927.

### LEGUMES AND THE USES OF THE CROP

Editor Statesman:

The legumes are alfalfa, clovers, vetch, cowpeas, and soy beans.

Alfalfa will do well wherever the soil is rich, moist, deep, and

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underlaid by subsoil. Good farmers are partial to alfalfa for three reasons: (1) It yields a heavy crop of forage for hay. (2) Being a legume it improves the soil. (3) One seedling lasts a long time.

Before the seeds are sowed, the soil should be fine and mellow. In the south, the seed may be sowed in the spring or fall. In the north, spring sowing is best. Alfalfa is good for hay, it is also good for sheep and cattle; they can eat what is left in the field.

—Clovers

The different kinds of clovers will sometimes grow on hard or poor soil, but they do far better if the soil is enriched and properly prepared before the seed is sowed. Clover may be planted with barley, oats and rye.

Crimson clover is a winter legume. It usually does best when seeded alone, although rye or some other grain often seems helpful to it. This kind of clover is an excellent crop with which to follow cotton or corn. Common red clover, which is the standard clover over most of the country, is usually seeded with wheat or rye. Japan clover and the white clover make good pastures, also sweet clover makes good clover.

The best time to cut clover hay is when it is in full bloom. It should be mowed in the morning, and raked in the afternoon, and left in the windrows to cure. Vetch is good for hay. Cow peas and soy beans make good ensilage and pasture for cows, hogs, and sheep. These legumes have little, knotty, wartlike, growths on the roots of the plants. All plants do not have these root tubercles, as they are called. These tubercles are caused by bacteria or germs as they are sometimes called. These tiny germs nestle snugly together on the roots of these plants. They grow and multiply, through their activities the soil is enriched, by the addition of much nitrogen from the air. By so doing they add nitrogen to the soil and enrich it, so that other crops can be grown. In fields where wheat is raised year after year the crop gets lighter. It takes lots of nitrogen for wheat, so by rotation farming of legumes it serves two purposes. (1) Hay and pasture.

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—Arleta Sturgis  
April 12, 1927. Brooks, Ore., Rt. 1, Box 21, Brooks School, eighth grade.

### LEGUMES ARE GOOD TO BUILD UP SOIL

Dear Editor:

Leguminous plants are the second largest family of flowering plants. They are sometimes called the pulse family.

Leguminous plants should be planted ever so often where the soil is getting run down, because from the air by means of bacteria leguminous plants take nitrogen which live in wart like growth on the roots and put it in the soil, or in other words it builds up the soil.

Some of these leguminous plants are called alfalfa, clover, peas and vetch. Alfalfa is a paying crop, and besides it builds up the soil at the same time, and clover does the same.

Vetch, when planted with other grains, puts nitrogen in the soil, while its companion uses it. That way the soil has neither gained nor lost its value in nitrogen.  
—Raymond Claggett,  
Salem, Ore., April 11, 1927.  
Keizer School, Age 16.

### IMPROVE SOIL AND ARE PROFITABLE

Editor Statesman:

The leguminous plants or pulse family include acacia, alfalfa, beans, broom, clover, indigo, laburnum, licorice, locust, lupine, peanuts, sensitive plant, sweet pea, tamarind, vetch and wisteria.

The legumes are the second largest flowering family of plants, and they are of great importance in all parts of the world. Some are food plants while others are

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All have a strange and interesting power of taking nitrogen from the air by means of bacteria, which live in wart like growths on their roots. This power of bringing nitrogen to the soil makes many of the legumes valuable as fertilizer and cover crops for improvement of poor soils.

There are about 7000 species of leguminous plants, and whether trees, shrubs or herbs bear their seeds in pods (or legumes), hence the family name.

The legumes give us not only medicines, dyes, flowers, food, and feed crops, etc., but improve the soil as they grow, so they are valuable crops in many ways.

—Jean Lucien Graham,  
Salem, Ore., P. O. Box 209,  
Apr. 11, 1927.

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