

SALEM DISTRICT INDUSTRIES

SIXTH 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.

HERE IS SOMETHING INTERESTING TO SALEM'S GROWING PAPER MILL CULT

And It Is Interesting to Farmers, Too—"Ninety Days Replenishes in Abundance in the Wheat Fields the Potential Cellulose Needed in the Paper Making of the Country"—Luther Burbank Saw This, and Commented on It, Shortly Before His Death

In the Dearborn independent, Henry Ford's newspaper, in the issue of August 7, there is an article by James W. Beckman, the industrial chemist, that will prove of interest to Salem's fast growing paper mill cult. And to our farmers, too. It is well worth any one's time that it takes to read it. The article in full is as follows:

Millions of billions of dollars are wasted annually in one of the greatest of all our industries—farming.

In all its branches it is inefficient. The farmer derives benefits from the material raised on his soil. In any branch of agriculture, the same condition exists. More is left on the ground to rot away than is actually harvested and marketed.

The way it is simple enough. The great outstanding weakness of agriculture is that it is looked upon as a food industry alone. It is an industry with only one outlet for its product. This is, of course, a mistake.

Take, for example, wheat growing. The cartoonists depict the trials of the wheat farmer. His life, as portrayed, is not a happy one, and his future prospects are still less encouraging. Shall he curtail his acreage? Perhaps! But not until he makes use of every pound of chaff and straw he grows, and that in such a way as to derive an income—and a substantial income—from these products now completely wasted.

The old school says there is no value in them. The chemist says there is. Silica and soil have accomplished in ninety days, more or less, a chemical work that scientists have been trying to duplicate for as many years with only slight success. In ninety days of growth, a straw has been produced carrying at its tip a head laden with grain. The whole plant has to be hauled in, harvested, but the grain, a small percentage of the total growth, is all that is preserved. Yet the straw has a great potential value all its own; it is composed of cellulose and other substances capable of yielding, under modern treatment, paper, the quality of which depends only on that of the straw.

Why should not the wheat-growing industry come to be regarded as one that grows straw for paper manufacture, with wheat grain obtained as a by-product? And why should not extensive experiments be carried on for the purpose of developing a wheat straw which would yield a fibre as long as that obtained from wood, or longer, and not impossible development in view of what has been done in other fields of agriculture? Indeed, no less an authority than Luther Burbank was quite satisfied that the problem need present no special difficulties. In a letter, written shortly before his death, Mr. Burbank said:

"Mopstains of cornstalks, wheat chaff and straw, rice hulls, sawdust, and a long list of materials classified as waste should be made into useful products."

"More than sixty years ago I hauled numerous loads of rye straw from my father's farm to a paper mill in a nearby town before wood fibre had been used for paper making."

"Plants, like human beings, are most successful as specialists. The wheat plant has through centuries been trained to produce an enormous amount of plant eggs in a short space of time with a small amount of foliage. A short wheat plant is most desirable as being less exposed to fungus diseases and its ability to stand up instead of lodging. As most tall wheats often do, it needs to specialize still more in many respects, and the production of a specially long straw is only a matter of specialization. Meanwhile the enormous waste of straw and chaff should be saved. Mountains of cellulose in skyward about the lumber camps, and the mountains of rice hulls which are now a nuisance about the rice-hulling mills are useless."

"First National Bank, the bank of friendship and helpfulness in time of need. Interest paid on time deposits. Over a hundred and watch your money grow. (19)

"Urbah & Roberts, realtors, 123 N. Commercial. Know property values and make for you profitable investments. Will both save and make you money. (2)

until someone can make them useful through the aid of chemistry." In our national economy, we have been profligate; we have devastated our timberlands, our main source of paper supply, without making any effective demands for replanting. But even if we were now to make such demand, it would take fifty years for us to grow a crop of trees suitable for paper manufacture. Ninety days replenishes in abundance in the wheat fields the potential cellulose needed in the paper making of the country.

Using straw as a raw material in the manufacture of paper is not a dream. In Germany for some time a paper plant has been operating along these lines. It not only produces paper, but the liquors resulting from the cooking processes are treated in such a manner as to cause them to yield by-products, such as wood alcohol, acetone and various oils. These can be used as fuel in the farmer's gas engines.

The quantities of such by-products obtained in the manufacture of paper from straw are very considerable. When one ton of straw pulp for paper is produced the following yields in by-products are obtained:

33 lbs. of (Methyl alcohol) metanol
44 lbs. of methyl ethyl ketone
55 lbs. of acetone
55 lbs. of light oils
174 lbs. of heavy oils

The approximate value of these by-products is forty dollars, the absolute amount dependent, of course, on the somewhat fluctuating market quotations.

All the by-products are of importance in the arts. Metanol is used as a denaturing agent. Acetone finds an extensive use as a solvent, being especially in demand with the artificial leather industries. Methyl ethyl ketone is also used as a solvent, while the oils that are obtained can, as has been said, well be used as fuel in internal combustion engines such as tractors and automobiles, as well as for other purposes in the arts.

farmer in fattening stock on molasses, as so often is done.

Similar possibilities open out in the various agriculture fields. Take the apples of California for an example. There were 154,000 tons of apples marketed in this state in 1924, just a small fraction of the nation's crop, and it is estimated that this amount was less than half of the actual amount grown. The balance was left on the ground to rot. It is the same in regard to nearly all the fruit crops of the country. They contain most valuable products developed during the growing season, yet they are left to rot, thus losing completely the values which chemistry could and should save for the arts and other purposes.

The first step toward rehabilitating agriculture is to make it a real industry that utilizes everything it produces, turning all into values. The packing houses of Chicago indicate the way. They have become more than food factories; everything is turned into value, so that in addition to being food products, the packing houses are recognized as medicinal and fertilizer industries.

It is indeed not much to say that a day will come when next to the wheat elevator will eventually stand a paper mill turning out the nation's paper.

Equally certain is it that one day large chemical plants will raise themselves close to the large fruit warehouses, where all fruit not demanding the highest prices as human food will be converted into products of such character as to command markets all over the face of the globe.

When agriculture has become modern and efficient in all respects, then it will be time enough to seek special remedies. But that time, it may safely be predicted, if modern methods are really pursued, will never come.

To quote from Mr. Burbank's letter again: "Until the plant breeder can produce special fiber and cellulose plants, all these wastes should be utilized."

The Peerless Bakery, 170 N. Commercial, sanitary, up to date. Prompt delivery. Bakers for those who appreciate the best. Increasing patrons tell the tale. (*)

OREGON JERSEYS PILE UP RECORDS

Adding to the Fame of This State as the World's Jersey Center

(Oregon's great Jersey cows are constantly piling up additional records that accentuate the fact that ours is the greatest Jersey country in the world; and Salem the Jersey capital of the globe. The following notes from the American Jersey Cattle club, 324 West Twenty-third street, New York, under date of August 18, are in point:)

Adora Maid of Poppy, a young purebred Jersey cow owned by Clair J. Reed and Lorenzen Bros. of Dayton, Oregon, has won both a gold and a silver medal by producing with calf, 735.51 pounds of butterfat and 12,671 pounds of milk in 365 days. Adora Maid was also tested as a junior two-year-old when she won a silver medal by producing 627.34 pounds of butterfat and 11,668 pounds of milk in 365 days.

Walter L. and Mabel K. Baker of Canby, Oregon, have completed an official production test on the Jersey cow, Blossom's St. Maves Jewel. Jewel was tested for 365 days and in that time she produced 65,083 pounds of butterfat and 1,081.03 pounds of milk. Her milk averaged 6.10 per cent fat for the test, and she was with calf for 223 days of the 10 months. When tested as junior two-year-old form Jewel made a 365-day record of 614.72 pounds of fat and 3783 pounds of milk.

Poet's Mabel Mowat, the only Jersey cow on record to win three medals of merit in successive tests, has finished another test in which she produced, with calf, 516.54 pounds of butterfat and 8525 pounds of milk in 246 days. Mowat is owned by Karl Hanneman of Corbett, Or., and she is again on record, making a splendid record.

Wild Rose Tillie 515987, a junior three-year-old Jersey cow, owned by Henry Stewart of Albany, Or., has completed an official 365-day test in which she produced 497.63 pounds of fat and 3291 pounds of milk on two milkings per day. She carried calf for 213 days of this time and her milk averaged 5.96 per cent fat for the test. With this record she qualified for the register of merit of the American Jersey Cattle club.

G. W. Day, tires, tubes and accessories. Has the Goodyear tires, the standard of the world. Mr. Day can give you more mileage. Corner Com'l. and Chmsekate. (*)

Quality painting, both varnish and lacquer work, in our modern equipped paint shop. Washing, greasing and night service; tire repairs. Wood's Auto Service Co. (*)

White House Restaurant, 362 State St., where hundreds of people prefer to eat. All you want to eat for less than you can eat at home. Quality and service. (*)

Dates of Slogans in Daily Statesman (in Weekly Statesman)

(With a few possible changes)	Sugar Beets, Sorghum, Etc., May 9, 1926
Loganberries, October 1, 1925	Water Powers, May 18
Prunes, October 8	Irrigation, May 20
Dairying, October 15	Mining, May 27
Flax, October 22	Land, Irrigation, Etc., June 3
Filberts, October 29	Floiculture, June 10
Walnuts, November 5	Hops, Cabbage, Etc., June 17
Strawberries, November 12	Wholesaling and Jobbing, June 24
Apples, November 19	Canneries, Etc., July 1
Raspberries, November 26	Hops, July 8
Mint, December 3	Goats, July 15
Beans, Etc., December 10	Scholls, Etc., July 22
Blackberries, December 17	Sheep, July 29
Cherries, December 24	National Advertising, August 5
Pears, December 31	Seeds, Etc., August 12
Gooseberries, January 7, 1926	Livestock, August 19
Corn, January 14	Grain and Grain Products, August 26
Celery, January 21	Manufacturing, September 2
Spinach, Etc., January 28	Automotive Industries, Sept. 9
Onions, Etc., February 4	Woodworking, Etc., Sept. 16
Potatoes, Etc., February 11	Paper Mills, Sept. 23, 1926
Bees, February 18	
Poultry and Pet Stock, Feb. 25	
City Beautiful, Etc., March 4	
Great Cows, March 11	
Paved Highways, March 18	
Head Lettuce, March 25	
Silos, Etc., April 1	
Legumes, April 8	
Asparagus, Etc., April 15	
Grapes, Etc., April 22	
Drug Garden, April 29	

THIS WEEK'S SLOGAN

DID YOU KNOW That Salem has become an important live stock center, through the building and operation and growth of the Valley Packing company, a concern owned by local capital; that this stabilizes and guarantees the best prices in the United States for all kinds of marketable live stock; that the farmers of the Salem district ought to raise more and more cattle and horses and hogs and sheep and poultry, for the profits they can make directly, and for the benefits that will come to them indirectly, in the better farming methods that will thus be encouraged; and that this is the very best farming and fruit growing and mixed farming section in the whole United States, and, for the matter of that, in the entire world; and that there is room here, and there are incomparable opportunities for thousands of new men on our farms and ranches and ranges?

OUR MODERN LIVE STOCK INDUSTRY MUST HAVE THE SUGAR BEET INDUSTRY

The Feeding of Live Stock Requires for Its Growth the By-Products of Sugar Beet Growing and Processing—This Applies Also to Sheep Feeding and Dairying and the Breeding of Poultry

"The change in the complexion of cattle and sheep raising," said Townsend Monell, of the Western Slope Beet Growers' association of Colorado and Utah, last year, "adds to the gravity of the problems facing the growers of sugar beets. We have to raise sugar beets on our irrigated land every four years to free it of weeds and suit it for grains and other crops. Furthermore, the nation's meat supply is becoming more and more interlocked with the sugar beet problem."

"Add to these considerations the fact that we now produce only one-fourth enough sugar to supply our domestic needs and are dependent on foreign sources for the other seventy-five per cent and it becomes easy to see the importance of preserving the budding domestic industry."

Mr. Monell's association gives the cost of raising beets per acre as follows: plowing \$3.95; leveling \$1.70; seed \$3.02; planting \$9.4; cultivating \$3.35; irrigating \$8.57; handwork \$22.00; plowing out \$2.53; hauling \$11.09; rental of land and water \$15.00; depreciation of stock and equipment \$2.00; interest on stock and equipment investment \$5.00; taxes on equipment \$1.00; fertilization \$10.00.

These costs total eighty-six dollars an acre. The sugar beet grower is paid in direct proportion to the price of sugar.

Not Higher Here The cost of growing sugar beets ought to be somewhat lower in the Willamette valley, especially in seasons and on lands requiring no irrigation. The profits depend on several things, including the number of tons grown on each acre, the sugar content per ton, the price of sugar, and the uses made of the pulp from the grinding of the beets, the tops, and the molasses; the by-products.

The Willamette valley is in position to make good use of the by-products, in the livestock industry; in increasing beef and nut-

ton and milk products and poultry products.

There is no other one thing that will do so much to conserve and build up the fertility of our soil. Beets make a rotation crop. They do not rob the land. They get their sustenance from the rain and the wind. They are a cultivated crop, and leave the land clean from weeds.

The beet industry will, in building up the live stock industry, more than fill the breach that is made by the use of tractors instead of horses in farm work—in returning fertility to the soil.

The reader will notice that Mr. Monell said we produce only a fourth of our sugar supply. We now produce only a sixth of it in the form of beet sugar in this country. Our sugar consumption is now about six million tons a year; slightly over that. We produce in this country about a million pounds of beet sugar. We get from the Philippines, Hawaii and Porto Rico, and from Louisiana, enough cane sugar to make up about another million pounds. Nearly all of the balance, 4,000,000 pounds, we get from Cuba; cane sugar.

GOOD SEED IS THE KEY TO GOOD CROPS, SAYS HIGHEST AUTHORITY

The Cream of the Crop Should Be Saved for Planting—Good, Plump, Heavy Seed Will Be at a Premium in Western Oregon This Year—Best Grasses for Sowing on Forest and Burned Over Land—The Oregon Agricultural College Is Ready to Help

Editor Statesman: Good seed is the key to good crops. Poor seed does not get good yields. A successful agriculture is not built by using screenings or culfs for seed purposes. Some districts have been irreparably injured because of sowing alfalfa and clover screenings for planting at home. Many people have experienced the "running out" of potatoes and other crops because they have saved the culfs for planting.

The cream of the crop should be saved for planting. Good, plump, heavy seed will be at a premium in western Oregon this year. Because of dry weather, insect conditions, considerable rust and various other unfavorable factors, many lots of seed contain much that is light in weight, shriveled, or otherwise unfit for planting. Among the grains it is particularly desirable where possible to get certified seed to be sure that it is free from objectionable mixture, and to get seed that is thoroughly re-cleaned to take out as much as possible of the shriveled, light, and diseased seed.

Wheat of western Oregon is generally light this year. Folks who can secure their seed from those fields that were well filled and quite free from disease will be at an advantage. Even such seed should be thoroughly re-cleaned to get a vigorous crop started this fall. Much of the winter oats is light, and it will need thorough screening and cleaning to dispense with the light seed, the buck chaff, pink and other objectionable material.

Even the vetches, usually so plump and well filled for western Oregon, are in many cases badly shriveled. Much of this seed that is shriveled is of doubtful quality for sowing purposes. Thorough cleaning before planting is desirable.

In connection with the growing of any of these crops it is desirable that the seed be as free as possible from mixture. If you are growing white wheat, get seed with as little a mixture of red as possible. If you are growing Common vetch, get pure Common vetch with as little Hungarian, or Purple, or Hairy vetch as possible. The Hungarian and Common are not so objectionable a mixture for hay purposes, but for seed purposes mixtures of any of these vetches with the other, limits the salability of the crop. If you sow mixed vetches, and know that you are going to use the material for hay silage, it is not so bad. However, one never knows at the sowing time whether the hay or the seed market will be best. In such cases it is best to sow pure varieties rather than mixed lots.

This year after all of the fires in forest and burned over land there will doubtless be a considerable amount of pasture grasses. The common "burn mixtures" that are on the market usually contain a lot of cheap or otherwise poor seed. These mixtures are in many cases made up of cheap grass seed like cheat, mesquite, and rye grass, and screenings of other seed that can not otherwise be sold. Oftentimes these mixtures are expensive and contain objectionable weeds. It is therefore particularly desirable, if sowing pastures this fall, to buy good seed and make your own mixture. This prevents getting seed that is not worth the money, and against introducing objectionable things into the pasture. Among the best of the grasses for sowing are the common rye grass of western Oregon, orchard grass,

show that Oregon had 271,599 horses and 14,375 mules, or a total of nearly 286,000 horses and mules. Oregon has approximately 50,000 farms. We therefore have an average of nearly six horses per farm. With many of the farms of very small acreage, it is easy to see that there are plenty of horses to take care of the farm work in Oregon at the present time.

There has been some interest in saddle types of horses, especially horses that would be suitable to use in riding schools and for people in the city. This market has been rather particular, and there have not been a great many horses marketed in this manner. In fact, it is a specialized market and although large sums have been paid for individual horses, there has not been a great number used for this purpose, especially here in the west.

Good Horses to Go Higher There may be some increase in the price of horses within the next few years, but it is rather doubtful if this increase will be very rapid. Since all draft horses are quite old at the present time, and there are probably not enough colts to replace the old horses, the gradual increase in price that will take place must take place because of a better quality of horses and because there is a decrease in the number of horses raised.

Horse breeders must follow the practice of eliminating the common types of horses and breed only the best mares to the best stallions. The horse market, like any other market, depends upon the demand and the supply of horses to meet this demand. If prices in horses rise, it would mean that this advance in price would be gradual. We cannot expect that there will be an abrupt change in prices.

The Midget Meat Market never fails to give you the finest meats and fish. There is but one place in Salem to get the finest fish. The Midget Market has it for you. (*)

8th Horses to a Farm The census figures for 1926

tall oat grass, Kentucky blue grass, red top, timothy, red, white, alkali and burr clover. Of course not all of these are used in all pasture mixtures, but from this group the most important grasses for this purpose may be chosen. The rye grass is of exceptionally good quality in western Oregon this year.

One of the safeguards against poor seed is certification. There are many samples of grain and other crops that can not be determined by a laboratory analysis as to whether or not they are pure. Agricultural College experts visit the fields shortly before harvest and determine the amount of mixture that is present. A threshed sample is also examined. It is determined whether the seed is good enough to certify. No seed is certified except for the current year. Lists of certified seed may be had from the College.

The Experiment Station also maintains a seed testing laboratory where purity and germination tests are made for farmers and seedsmen. These tests are gotten out in a few days. Farmers can send in samples and decide on lots to buy before sowing time.

This seed testing laboratory is the farmer's protection against purchasing impure seed. He can secure samples of the seed and have tests made and then determine whether or not to make the purchase. Early use of the laboratory brings more prompt and timely returns.

C. R. HYSLOP, Corvallis, Oregon, August 11, 1926. (The above from Prof. Hyslop, agronomist at the Oregon Agricultural college, was intended for the annual Seed Slogan number of last week, but arrived too late. Prof. Hyslop is our highest authority on matters coming under his department.—Ed.)

Doughton & Sherwin, Hardware, 286 N. Com'l. St. Hardware, Builders' Supplies, Paints, Varnishes. Give us a call, you'll find our prices reasonable. (*)

Walter H. Zoesl, automobile tires, tubes and accessories. Vulcanizing that holds. High quality, superior service. A trial makes a customer. 198 S. Com'l. (*)

It's the surplus money a man has that gets him in bad.

TEACHERS CLASS SCHEDULE DRAWN

Marion County Institute to Hold Sessions October 11 to 12

The annual teachers institutes in the state of Oregon for the 1926 season will open in Klamath county September 2 and close in Coos county November 24. The dates fixed for the several institutes are tentative, but probably will be approved by the county superintendents.

Following are the tentative dates of the several institutes as announced by R. R. Turner, state superintendent of public instruction: Baker, September 30 and October 1; Benton, September 27 and 28; Clackamas, November 12 and 13; Clatsop, October 14 and 15; Columbia, October 14 and 15; Coos, November 23 and 24; Crook, October 25 and 26; Curry, November 22 and 23; Deschutes, October 25 and 26; Douglas, October 28 and 29; Gilliam, September 16 and 17.

Grant, September 10 and 11; Harney, October 14 and 15; Hood River, September 8 and 9; Jackson, October 18 and 19; Jefferson, October 17 and 18; Josephine, October 28 and 29; Klamath, September 20 and 21; Lane, September 9 and 10; Lincoln, October 21 and 22; Linn, September 27 and 28.

Malheur, November 23 and 24; Marion, October 11 and 12; Morrow, September 13 and 14; Polk, November 9 and 10; Sherman, October 28 and 29; Tillamook, October 11 and 12; Umatilla, October 7 and 8; Union, October 5 and 6; Walla, October 4 and 5; Wasco, September 7 and 8; Washington, October 21 and 22; Wheeler, September 14 and 17; Yamhill, October 11 and 12.

Vibbert & Todd Electric Store, High at Ferry St. Everything electrical. Good service and low prices are bringing an increasing trade to this store. (*)

Army and Outing Store. Biggest bargain in clothing, shoes, underwear, hosiery, gloves, wallets and suit cases. The working man's store, 189 N. Commercial. (*)