



Intensified Farming

Common Sense in Farming

CHAPTER VI. Potato Culture.

The care of soil is the first requisite to success. I would emphasize the fact that properly handled barnyard manure and proper tillage of the soil is the best means of securing large crops. And I would impress all with the fact that a well balanced fertilizer must be in hand to do this. Every farmer must make a study of his soil. We have suggested an experimental plot to aid him in his studies.

In the eastern, southern and middle states potatoes do well after green manures. Plant late potatoes on last year's corn ground sown to crimson clover. 10 pounds per acre, or winter rye. Before plowing under, June 1, sow 100 pounds of lime and plaster, equal parts. When a heavy green crop is plowed under, it goes through a fermentation not unlike that which occurs in a barrel of kraut, resulting in the formation of a considerable amount of acid. Potatoes are benefited by this, since the resulting acid condition of the soil prevents the development of the potato scab.

Potatoes are grown on a great variety of soils. The ideal soil of this crop should be one so light as to offer no great resistance to the enlargement of the tubers, so supplied with vegetable humus as to be moist, and so rich as to furnish an unending supply of fertility for plant and fruit growth; stiff heavy soils must be drained and heavily manured, both with barnyard manure and by plowing under green crops.

The success of the potato is largely dependent upon the crops preceding it in the rotation; clover and heavily manured soil are the best. Potatoes are best planted in the fall, planted to corn and oats, sowed to rye and plowed under the following spring. Before plowing, roll, sow equal parts of lime and gypsum, 100 pounds per acre. After the crop is harvested give another coat of manure, sowed to rye, and when 20 inches high, in the spring time, roll, sow lime, kanit and gypsum, plow, and there will be another heavy yield of potatoes. Several crops may thus be raised if money is much needed, and but few acres of land available.

Potatoes cannot be grown on land which in the preceding year has produced scabby tubers. The germs in the soil must be allowed to die by growing such crops as grass, grain or corn. The mineral manure and green manure plowed under and the acid therefrom is very favorable for cleaning potatoes.

Plowing can scarcely be too deep; provided that much of the subsoil be not brought to the surface. When practicable, the plow should be gradually increased from year to year. Tubers are formed above the seed; the roots feed below it. Practical experience, as well as the extent of the distribution of potato roots in the soil, emphasizes the importance of deep and thorough preparation of the soil for this crop. If soil is to be planted the next year, fall plowing destroys the eggs of many insects, if potatoes follow corn or oats, the green manure and the spring plowing will bring the best of results.

When barnyard manures supply nitrogen, phosphoric acid and potash; with proper irrigation, natural or artificial, with sufficient cultivation, 400 bushels of potatoes ought to be harvested from one acre; and when potatoes sell for one cent a pound—and they often bring that price, \$340 per acre is realized, or over \$1400 on the available farming land of six acres. When the land needs thorough cultivation, plant it to potatoes and buy or raise the feed for stock elsewhere.

If any wish to sow on their land a chemical fertilizer, one of the best for potatoes is the quick-acting salt-peter. Of phosphate fertilizers, superphosphate is preferred. Among potash fertilizers the sulphate of potash has been found to afford a better quality of potato than the muriate of potash. Ashes, where they can be had (and the locust or gum tree grown on the farm produces good strong ashes), are effectively used to supply the potash for potatoes. Do not apply chemical fertilizers in immediate contact with the seed. Put it in the bottom of the furrow and cover with soil, or put on top of the soil and cover slightly with the hoe to prevent air slackening. I would not advise to sow these chemicals broadcast, as much of it is lost.

In planting, the rows should be laid off as close together as practicable without interfering with horse cultivation. For the time of planting you must judge by your own and others' experience in your section of the country. Where the potatoes are grown for the early market the aim should be to plant as early as possible. Frequent stirring of the soil with a harrow warms it, produces chemical action, sprouts the seeds and destroys the weeds. Grow the potatoes during the moist part of the season, early or late in the summer, avoiding mid-summer drought. Seed potatoes for the next year may be had from the unmarketable early potatoes.

hiller should be used always when the tubers begin to set. Never root-prune potatoes or corn. This time to cut seed is a few days prior to planting. Use dry muck or plaster to dry up the bleeding. If potatoes are allowed to grow long sprouts, and they are broken off, it is at the expense of the strong growth of the plant, for much nutriment is lost. When the sprout is broken off several small sprouts grow from the eye. If ice can be had in the spring when the warmth of the sun is searching every cranny, put a cake of ice in the "air tight" storage and winter will continue there. Ice reduces the temperature 40 degrees F. 8 above freezing, and potatoes require a warmth of at least 50 F. to start the sprout. It has been found to be of advantage to change seed potatoes every few years. Northern grown seed must be had in some sections of the country. Many carloads of potatoes are shipped south for seed from northern Michigan every year. A few seed potatoes from another section of the country may be planted and the next year an abundance of seed is at hand. One bushel of potatoes has approximately 500 eyes. Each eye will grow from 3 to 7 potatoes, and planted the second time will yield much seed. Such as do this will yield seed "to till and keep."

The cutting of the potato for seed by the novice is a question as to how to do it, and is to the careless, a matter of loss. Potatoes have a seed end and a stem end. The seed end grows the sprouts first and yields more potatoes. The most successful cutting of potatoes is from end to end in halves or quarters. A bushel of potatoes (50 pounds) may contain 240 quarters. When the whole potato is planted 18 inches apart in 3-foot rows an acre requires 9580 potatoes, or about 44 bushels. 28 bushels when halved, or 11 bushels when cut into pieces of two eyes each; about 10 bushels of seed is required. When potatoes are planted in checks 3x3 feet 6 to 8 bushels are used, according to the size of the potato; the larger the tuber the more seed is required. There is greater danger of failure in obtaining a good stand of potatoes from small cuttings. Many of them are liable to rot, and if all should grow the sprouts are weaker and too much wet or drought causes the plants to die or produce but little fruit.

Checking the rows effects a saving of labor in cultivation, and also in planting and harvesting when dug by hand. On rich moist soil checks of 30 inches apart is sufficient, and will produce the greater number of bushels. Cultivate once a week until the vines fall down, using the leveler and hiller to hold the moisture. The leveler can be used with good effect after the tubers are as large as hen's eggs. If this important information enables the farmer to increase his yield 5 to 10 bushels per acre he has repaid many times in cash for the time he spent in making and using these valuable tools, and adds to the store of his knowledge of valuable facts that will earn—by each year's increased yield—a handsome sum indeed.

Charcoal has a wonderful absorbing quality and will keep potatoes dry and mealy until late in the following summer. Some varieties of potatoes readily respond to the absorbent powers of the charcoal. Potatoes stored away in a cold and dry place, with the addition of fine charcoal filling the interstices between, when cooked the next spring are as dry and flaked as when taken fully ripe in autumn from the garden or field and are most appetizing and palatable. The evaporation given off by the potato, if not absorbed by the charcoal, is partially re-absorbed by the potato, making it "soggy," and starting the sprouts early in the spring. Potatoes in a dry and cool condition start to grow very slowly, consequently retain their best condition longer when thus treated.

Much has been written and printed of late about flies as a menace to human health. But not a word has been said about the damage they do to cultivated crops, which in this country must amount to scores of millions of dollars annually. Nearly all diseases of plants are due to fungi, usually microscopic. Of such character, for example, are the "smuts," of wheat and other grains, the "mildews," the "rusts," and all the long list of fruit "rots" of various kinds. These and ever so many other vegetable maladies are attributable to minute fungi which feed upon the plants.

The fungi in question are distributed in a number of ways, but commonly by flies—that is to say, by the Muscidae and Sarcophagidae, or, in other words, the house fly and its relatives, and the carrion flies. These insects feed on almost every thing, manure, and, constantly flitting from place to place, are the universal distributors of the "spores" (corresponding to seeds) of all kinds of fungi.

Flies are extremely fond of odors. Some that are horrible to us are most agreeable to them. They are attracted to the cane fields by the smell of fermenting sugar, and there feed on that sweet sap. Thus it comes about that spores of the fungi that cause the common diseases of the cane are found in the excreta of flies caught in the cane field. The "pineapple disease" is only one of a number which they are instrumental in distributing. Another species of cane fungus is of large size—a kind of mushroom. One of its spores, left by a fly on the cane, is washed by rain to the ground, where it in sprouts. Its vegetation later on produces a curious fruit, which takes the shape of a whitish ball. That is to say, the ball is a sort of case, inside of which the mushroom is tightly packed, like a jack-in-the-box. At daylight the spherical box, which is beneath the surface of the earth, bursts, and within two minutes the mushroom appears above ground, attaining a height of three or four inches—From "The House-fly as a Crop Wrecker," Technical World Magazine.

A wonderful postcard—Everybody should see the picture. Way of Life, and read carefully the explanation of one of the most clear, truthful and sublime revelations of the doctrine of salvation, "The Faith of Jesus," ever printed, superior, as this age of light and revealed truth is superior, to the greatest wisdom and skill of the old masters. Price 2 for 5c. Huntley Bros. Co., Postcard Headquarters and Jones Drug Co.

You might interest your Eastern friends by sending them The Courier.

The Earth's Age

How old is the earth? It is again agitating the scientists, and Prof. H. S. Shelton, of the University of Chicago, basing his conclusions on the "salt theory," says it is approximately 400,000,000 years. "It must not be forgotten," writes Prof. Shelton, that this salt method, even if in the future it should be superseded, was the first serious attempt to get outside the vicious circle of the classical physical methods which have proved such a barrier to the progress of geological thought on this fascinating cosmic problem." Prof. Shelton's estimate is secured thus: "The analysis of rocks shows clearly that the proportion of sodium in the sedimentaries is much smaller than in the igneous rocks. The natural inference from this is that the balance is to be found in the ocean in the form of salt. Assuming these premises and a fairly uniform rate of erosion, the estimation of geological time is reduced to a process of simple division. It is only necessary to find the total quantity of sodium in the sea and the amount brought down by the rivers each year."

Lion Fendles Child In Pittsburg a savage lion foiled the hand that a child thrust into his cage. Danger to a child is sometimes a great when least regarded. Often it comes through colds, croup, and whooping cough. They slay thousands that Dr. King's New Discovery said have saved. "A few doses cured our baby of a very bad case of croup," writes Mrs. George B. Davis of Flat Rock, N. C. "We always give it to him when he takes cold. It's a wonderful medicine for babies, croup, asthma, hemorrhages, weak lungs. 50c. \$1.00. Trial bottle free. Guaranteed by all druggists."

The Record of Raindrops. It is by carefully noting small and apparently insignificant things and facts that men of science are enabled to reach some of their most surprising and interesting conclusions. In many places the surface of rocks, which millions of years ago must have formed sandy or muddy seabeaches, is found to be pitted with the impressions of raindrops. In England it has been noticed that in many cases the eastern sides of these depressions are the more deeply pitted, indicating that the raindrops which formed them were driven before a west wind. From this the conclusion is drawn that in the remote epoch when the pits were formed the majority of the storms in England came from the west, just as they do today.—Harper's Weekly.

A Tree in a Thunderstorm. Every one is aware that it is not wise to seek a tree's shelter in a thunderstorm, but if you must take refuge there then climb to the topmost branches. It has been proved that the upper boughs of trees during a storm would be the safest position, and it is said that birds in the branches are seldom killed. When the tree is struck by lightning it is the trunk which, presumably from its greater dryness, is a bad conductor and which therefore suffers the most.

Whooping Cough This is a more dangerous disease than is generally presumed. It will be a surprise to many to learn that more deaths result from it than from scarlet fever. Pneumonia often results from it. Chamberlain's Cough Remedy has been used in many epidemics of whooping cough, and always with the best results. Delbert McKee, of Harlan, Iowa, says of it: "My boy took whooping cough when nine months old. He had it in the winter. I got a bottle of Chamberlain's Cough Remedy which proved good. I can not recommend it too highly." For sale by Jones Drug Co.

CURE FOR LIQUOR HABIT

Give Orrine and Destroy All Desire

Orrine is the most successful cure for the liquor habit that the world has ever known. It is a home treatment given without publicity, detention from business or loss of time, and is absolutely guaranteed if the simple directions on each box are carefully followed. So remarkable have been the changes wrought for suffering drinking men by Orrine that leading ministers, charity workers, philanthropists and druggists everywhere recommend the treatment. Thousands of endorsements have been given for the remedy. Read this one from The Quaker Drug Co., Seattle, Wash.: "During the past five years we have sold thousands of packages of Orrine and have never heard it spoken of except in highest terms of praise. We have dozens of people come to us and state that Orrine has cured them or their husbands or dear ones from the curse of drunkenness. Orrine is one of the few articles on the market that we can conscientiously recommend to our customers, and we do so daily feeling that we have done what to us seems a duty as well as a service."

Orrine is prepared in two forms. No. 1, a powder, absolutely tasteless and odorless, given secretly in food or drink. Orrine No. 2, in pill form, is for those who wish to cure themselves. Orrine costs only \$1. a box in every box there is a guarantee which entitles you to a refund of your money if Orrine fails to effect a cure. Write for Free Orrine Booklet (mailed in plain sealed envelope) to Orrine Co., 104 Orrine Building, Washington, D. C. Orrine is for sale in this city by Jones Drug Co., 615 Main St. They know Orrine is a reliable and efficacious remedy for drunkenness and they will not offer you a substitute.

"Will You Help to Build The Fence"

This sentence, flashing from sign boards, from street car bulletins, from all sorts of advertising mediums, from the people of Seattle, Spokane and Tacoma guessing last week, had them asking "What fence?" "Whose fence?" etc. or commenting, "Clever advertisement that; wonder what the answer is." The mysterious sign appeared so often that it became a by-word. Mysterious hammering in the next room, any unexplained noise, was referred to all over the three cities as "Must be somebody helping to build the fence." When an advertisement catches on, it catches on to stay. Not until Sunday was the Fence explained. And the joke of it was that it was a fare advertisement, nobody paid a cent for it, and the people who pay real money to get before the public wish they could think of anything half as good.

The Sound Sleep of Good Health The restorative power of sound sleep cannot be over estimated and any ailment that prevents it is a menace to health. J. L. Southern, Kau Claire, Wis., says: "For a long time I have been unable to sleep soundly nights, because of pains across my back and soreness of my kidneys. My appetite was very poor and my general condition was much run down. I have been taking Foley's Kidney Pills but a short time and now sleep as sound as a rock. I eat and enjoy my meals, and my general condition is greatly improved. I can honestly recommend Foley's Kidney Pills as I know they have cured me." Sold by Jones Drug Co.

Will our subscribers please look over the old Couriers and see if they have a copy of July 30, 1909. The same will be paid for if mailed or delivered at this office.

Name Your Farms

Throughout the United States there are many farms that are not named, and the Courier believes that it is just as important that the farms named. Give your farm a name. Fill out this coupon, and send it to the Oregon City Courier, and your farm name will be placed on the Courier Registered list of Farms. The name sent in will be published together with the name of the proprietor. Use coupon below.

Name of farm .....
Proprietor .....
Address .....

REAL ESTATE TRANSFERS

Mary E Wright to Emma E Easton 6 acres in Sec 1 T 4 S R 1 E, \$800. S. Fisher to Elmer W Finzer 80 acres in Sec 7 T 5 S R 1 E, \$3000. Olof Johnson et ux to Emma Johnson, 3 acres in Clackamas Riverside, \$1500. The Oregon Iron & Steel Co to Loren G Harrington Lot 5 of Tualatin Meadows, \$10. Loren G Harrington to A L Harrington a tract of land in Tualatin Meadows, \$10. Samuel O Gribble to J K Gribble, 50 acres in Sections 15, 16, 21 and 22 T 4 S R 1 E, \$600. Mary Stubbe to William Stubbe 80 11 acres in the G W Palmateer D L C, \$1. William Stubbe to Mary Stubbe, 80.11 acres in the G W Palmateer D L C, \$1. Alvina Wright to Ernest A Leighton tract II in Willamette Falls Acreage Tracts, \$1500. Hans Paulson et ux to H Julius Paulson n.w. 1/4 of sec 1 of Sec 25 T 3 S R 5 E, except 6 acres, \$3000. William Lillie to C H Canfield, trustee, a tract of land in Oregon City \$1. Lucinda Dean to C A Forsberg a strip of land 10 feet in width in Sec 18 T 2 S R 4 E, \$20. N B Delore et ux to Grace E Loder 10 acres in the D L C of L D C La-tourrette, \$1. James Adams et ux to Kitta Chase, 15 acres in Sec 22, T 2 S R 2 E, \$1500.

Gladstone Real Estate Association to Bailey G McClain, Lots 15 and 16, Blk 38, Gladstone, \$300. J John W Loder et al to Olaf Larsen and Sarah A Rivers, a strip of land 20 feet in width in tract 57, Willamette Tracts, \$1. Andrew Robertson et ux to Joseph A Salloway, Lots 1 and 2 Blk 146, Oregon City, Oregon, \$1. H C Pearson to Mary A Pearson 3.91 acres in Sec T 4 S R 4 E, \$10. Michael Moshuk et ux to Fred S Menke, Blk 11 Holmes addition to Oregon City, \$1. I S McArthur et vir to Carl Francis Anderson 10 acres in Sections 13 and 14 T 3 S R 1 E, \$500. J L Vosburg et ux to M E Beatty and J A Fugate, 5991 acres in Sec 3 4 and 5 T 2 S R 2 E, \$4000. Katherine King et vir to Astre J Moe et al, Blks C and D Sim's Subdivision to Barlow, \$650. Astre J Moe et al to F W Gortler, Blks C and D of Sim's Subdiv of Lots 3 and 4 Blk 14, Barlow's Addition to Barlow, \$980. O W Eastham et ux to E G Canfield, 140 acres in Sec 36 T 6 S R 2 E, \$1. H. E. Cross Wm. Hammond

Cross & Hammond Attorneys at Law

UNION PACIFIC LIFE

INSURANCE COMPANY OF PORTLAND, OREGON

COMPARISON A NATIONAL BANK, OF PORTLAND, ORE.

Table with 2 columns: Item, Amount. Capital Stock \$ 500,000.00, Surplus 1,000,000.00, Capital Stock and Surplus \$1,500,000

Market value of capital stock on basis of capital and surplus on hand, (par value \$100) \$300 per share.

The bank has paid 7 per cent. quarterly cash dividends for 25 years, which is equal to 30 per cent. on the par value of the stock.

Market value of its capital stock on the basis of dividends earned and paid in cash each year on basis of 5 per cent. interest earnings will equal to \$600 per share or 600 per cent. above par.

UNION PACIFIC LIFE INSURANCE CO. OF PORTLAND, ORE.

WILL HAVE

Table with 2 columns: Item, Amount. Capital Stock \$200,000.00, Surplus 400,000.00, Capital and Surplus \$600,000.00

Taking the above figures as a basis of calculation, market value of capital stock on basis of capital and surplus as above (par value \$100) equal \$300 per share.

The average annual cash dividend earned and paid by the ten leading life insurance companies for the past 25 years amounts to 50 per cent. on the par on the par value of the stock.

Market value of stock on basis of dividends earned by the ten leading life companies on basis of 5 per cent. interest earnings would be equal to \$1000, per share or 1000 per cent. above par.

The security of a life insurance company is many times greater than any national bank, because the law limits the insurance company to investing its assets in first mortgages on improved real estate of double the value of the amount loaned.

WESTERN PEOPLE

SHOULD SUBSCRIBE FOR THIS STOCK BEFORE IT ADVANCES IN PRICE

Will be Superior to Many and as Good as the Best!

For Further Information, Address, MARK T. KADY, President UNION PACIFIC LIFE INSURANCE COMPANY Home Office, Portland, Oregon OREGONIAN BUILDING Agents wanted to secure Subscriptions