

REVOTED

THE FARM

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THE FRES

KANSAS FARMER



ROUEN DUCKS.—See Page 108.

LEAVEN WORTH
APRIL 1, 1872.



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THE KANSAS FARMER



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[ENTERED, ACCORDING TO ACT OF CONGRESS, IN APRIL, 1872, BY GEO. T. ANTHONY, AT THE OFFICE OF THE LIBRARIAN OF CONGRESS, AT WASHINGTON.]

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LEAVENWORTH, APRIL 1, 1872.

[\$1.50 A YEAR.

The Kansas Farmer

GEORGE T. ANTHONY, Editor.

A. G. CHASE, ASSISTANT EDITOR.
MISS M. E. MURTFELDT, ENTOMOLOGICAL EDITOR.
R. S. CHASE, VETERINARY EDITOR.

Published Monthly, 75 Delaware Street, Leavenworth.

ARBOR DAY.

Our neighboring State of Nebraska has fairly beaten us, in establishing an Arbor Day for the entire State. The idea is, we believe, original with that State; and the name of the man who first promulgated the idea of an Arbor Day deserves to receive honorable mention.

May not the idea here given be acted on by other Agricultural Societies, until, for all time to come, the 10th of April may be known as the day to plant trees?

We suggest to County Agricultural Societies the propriety of offering liberal premiums, in accordance with the following resolution; and we especially urge upon our State Society, action similar to that of Nebraska.

This is the resolution passed by the State Board of Agriculture of Nebraska:

Resolved, That Wednesday, the 10th day of April, 1872, be and the same is hereby especially set apart and consecrated for the purpose of tree planting in the State of Nebraska, and the State Board of Agriculture hereby name it "ARBOR DAY," and hereby offer a special premium of one hundred dollars to the County Agricultural Society of that county in Nebraska, which shall upon that day plant, properly, the largest number of trees; and a Farm Library worth twenty-five dollars to the person who on that day shall plant properly in Nebraska the greatest number of trees.

Improvement, of Fontana, Kansas, writes us a pleasant letter from Miami county. He says: "Fontana is located on the highest prairie between Kansas City, Mo., and Galveston, Texas. It is surrounded by a rich and fertile country, and all the bottom lands are heavily timbered. Land is worth from \$5.00 to \$10.00 per acre. The past two years we have been favored with seasonable rains. Our farmers in common with other sections make the mistake of trying to improve more land than they can cultivate well. Fontana is supplied with most of the different tradesmen and mechanics. We need a tailor and a milliner. We have as good a grist mill as the State affords, also good churches and schools. The soil around here is especially adapted to the Kentucky blue grass."

We can corroborate all our correspondent says, of Miami county soil. We think the price of land a little underated. How would \$10.00 to \$20.00 do for unimproved?

We offer several different propositions in this issue, to induce the farmers of Kansas to become subscribers to THE KANSAS FARMER. Read all of them.

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THE STATE FAIR FOR 1872.

At a recent meeting of the Board of Directors, it was determined to hold the next State Fair at Topeka, commencing September 16th, and holding for five days.

We think this a good move, not only from the fact that the citizens of Topeka and Shawnee county showed such a liberal spirit last year, but also because they have excellent hotel accommodations, good railroad communications, and superior Fair Grounds.

TREE PEDDLERS.

Elsewhere we publish a letter from G. W. THOMPSON, upon the above subject. While we admit the force of Mr. THOMPSON's argument, so far as it relates to certain general statements used by a former correspondent, we can but think that his points upon the subject direct are not well taken.

While we are free to admit that nurserymen and tree peddlers may occasionally suffer hardship, from their peculiar manner of doing business, by a failure of parties to take their trees at the time agreed upon; yet, to protect them by any special legislation would give them an advantage granted to no other class. They are not the only class who deal in perishable goods.

The laws to protect labor *only* give the laborer a lien upon the property he has helped to build or make. But, would it be right to protect the nurseryman and tree peddler, and not the farmer? How many farmers are there in the State, who have purchased trees from nurserymen or tree peddlers, *that have got the article they bought?*

Ought not the farmer to have some protection, when he buys a Rambo and gets a Ben Davis? or a Willow Twig and gets an Early June?

We do not mean that all nurserymen commit these frauds upon the people, intentionally; but we do know that there are hundreds of unprincipled knaves who, year after year, traverse the country selling trees, who neither know nor care whether the farmer gets the trees he orders or not; and who would not scruple to spring a farmer's contract from one to one hundred dollars, if they had such an effective club to use as would be the special legislation required by our correspondent. We have no doubt that Mr. THOMPSON will be able to see, after a little reflection, how unjust this law could, and *would*, be made by designing men; and that whatever merit such a law might have in itself, would be more than overcome by the evils sure to follow it.

Let the nursery trade stand upon its own merits, subject to the same laws that govern other trades and business relations. We require no special privileges for the seller, or buyer, of trees, but more *caution* on the part of purchasers; as it takes so much time to develop deception and fraud. No man should buy a tree, unless he *knows* of whom he buys.

Our Correspondents.

Mrs. Thomas V. Lyon, of Riley County, Kansas, sends us some cooking recipes, which are published in another column, and desires to know if it is not best to cover up the peanut bloom every morning, and says: I followed this practice last season, and raised *one bushel and one half* of nuts, from one quart of seeds.

The excellent yield Mrs. LYON obtained, is sufficient evidence of the correctness of the practice. We have always recommended covering the bloom as fast as it opens.

A. H. Lundy, of Mitchell County, Kansas, writes us a long letter, but the most of it is so flattering to THE FARMER, that our modesty prevents our publishing it. He desires to know where he can buy a thoroughbred shorthorn bull. He has thoroughbred cows and heifers.

Will our shorthorn breeders answer Mr LUNDY, through our advertising columns?

C. H. Hawkins, of Canker City, Kansas, desires to know "What time of the year do the sugar maple seeds fall, and when should they be planted, and how? Also, how to plant and cultivate hedge seed, and how far apart to set the plants in the hedge row?"

Sugar maple drops its seed the first half of May usually, and the seed should be at once gathered and planted, in any convenient shaped garden bed, in which the soil has been made perfectly light and friable. The rows must be far enough apart, to permit thorough cultivation with the hoe, but the young plants must not be disturbed.

We have not space to answer the second question in full, in this column. The seeds should be tied in a sack, leaving room for the seeds to swell, and the sack then immersed in tepid water. As soon as the seed sprouts, which will be in ten days or two weeks, the seed should be sown in drills, in a carefully prepared seed bed, if but a small quantity twelve or fifteen inches apart, if a large quantity allow more space between the rows. Keep the surface loose and mellow, and permit no weed to find a lodgment in the seed bed.

As to the distance apart to set the plants, it is difficult to say. We have seen good fences when the plants were set all the way from four to *eighteen* inches, a great variation truly, yet fully allowable by practice. The character of the fence depends more upon the style and skill in trimming and cutting back, than in the distance apart the plants are set.

In making a hedge for ourself, we should set the plants from six to eight inches, and cut back twice the second and third year, and once the fourth year. Some, advocate a slight cutting the first season. Cultivate your hedge the first and second year as thoroughly as you would corn.

J. G. Van Camp (no postoffice address given), writes to say, that he has a sure cure for hog cholera. He says: "Make a strong tea of may apple root (*Podophyllum*), by boiling, and pour it in their swill tub, and feed to the hogs, and they will never have cholera. If one gets it, boil some of the root down, and mix a teacup full with sweet milk, and drench the hog with the amount. I have tried it three or four times with success."

Hog cholera is not as yet, sufficiently defined, to know *what* remedies are applicable to it.

Mr. VAN CAMP's hogs may, or may not, have had true cholera.

Podophyllum is what physicians would term an emeto-cathartic. It is an alterative, and in larger doses an emetic, producing violent spasms of the stomach. In hogs predisposed to diseases of the liver, the practice recommended by Mr. VAN CAMP, of giving them small doses in their swill, would be permissible, but it yields its alterative or purgative properties very sparingly if at all, to water. If this medicine is used at all, the better way would be to gather the root in early Spring, slice and dry

it by hanging up in a warm room, and when thoroughly dry pulverize finely. As a corrective to the liver, it may be given to a grown hog in doses of ten or fifteen grains, once a day, for three or four days. We cannot *recommend* it as a remedy for hog cholera until, as we said, we know what this disease is.

Farmer, Manhattan, Kansas, writes: "I have read your articles on wool growing and sheep raising in a recent number, with great interest, and desire to ask a few questions, prefacing them by saying that I have contemplated sheep raising on our bluff land and high rolling prairies, as a profitable branch of farming. In your article you recommend a *small* flock of about fifty head. Why not more? Don't you think a flock of two hundred or three hundred would pay? I think it ought to pay better, as they will have to be herded any way, on account of the wolves. Please give us your opinion, and also what variety of sheep would you recommend? Where had a man better go to get good healthy sheep, and at what prices could they be bought after shearing?"

Our correspondent's questions are intelligent, pertinent, and practical, and we will reply as fully as our space will permit.

We had several reasons for recommending a flock of "about fifty." First of which was, that we do not believe *special* farming is profitable, and we were writing for the masses of farmers, who desire to keep a variety of stock; horses, cattle, and hogs, and *fifty* sheep on such a farm is, in our judgment, about the right *average* proportion. Again, small flocks have proved more profitable than large ones, in proportion to numbers. We think these reasons are sufficiently potent for the present purpose.

In the hands of a man that understands the business, and will devote his time and attention to it, we have no doubt a flock of two hundred, three hundred, or even one thousand, can be made to pay.

As to expressing an opinion upon what varieties are best suited, we could as easily kick a hunter's hound pups, without offending the master, as to name a preference for any particular breed of sheep, without offending those who keep other varieties; but as we have conscientious scruples upon the sheep question, we will express our preference (in private), to our correspondent, as decidedly in favor of the Cotswold.

Our reasons briefly are, that they will produce as much wool in dollars and cents as any other, (not to say more), are good feeders, reasonably hardy, and are superior as mutton sheep to any, unless it be the South Downs, and are fully equal to those, in our judgment.

There is the single fact, in favor of the Merinoes, that their wool being more compact, and containing more yolk or grease, they are less liable to be injured by exposure to cold rains, or snow storms. No prudent farmer, however, will allow his sheep to be exposed to either. We do not know where to recommend our correspondent to go to buy his ewes. Good common ewes can be bought in Eastern Kansas, Missouri, Indiana or Ohio, after shearing, at from \$1.50 to \$2.00. From the two last named of these States, the expense of driving or shipping would add materially to these figures. Our advice would be to buy a small flock in Eastern Kansas, or Western Missouri, buy one or two full blood Cotswold bucks, and build up a flock to such dimensions, as suit your taste.

Oscar McConnell (no postoffice address given), writes to know if he can add names to the club of ten sent by him, at any time at the same rate; viz, \$1.00 per annum.

Yes. Names may be added at any time at same rate.

A. T. Plowman, Americus, Kansas, writes us a letter pertaining to potato culture. He says: "Three things are necessary to success: good soil, proper cultivation, and a favorable season. Plow deep, and pulverize finely. Lay off the ground

one way three feet apart, and drill the potatoes in, ten inches apart, each piece having one or two eyes, and cover while the ground is moist. Plant early. Before the sprouts come to the surface, harrow, and plow as soon as you can trace the rows. Work them three times, the last time before they come in bloom, leaving the ground as level as possible. I prefer new ground."

W. S. Hebron, of Newton, Sedgwick County, Kansas, writes to say a word for his county, as follows: "The soil here is from eighteen inches to five feet deep; the country well watered, and timber enough for all practical purposes, consisting of oak, black walnut, elm, box elder, white ash, cottonwood, hackberry, &c., and plenty of sawmills. Native lumber can be bought at reasonable rates. Coal is found in considerable quantities in the northern part of the county. The county is well supplied with schools and churches."

Mrs. H. H. McDonald, of Solomon City, Kansas, writes concerning the ground cherry spoken of by Mr. ADAMS in THE FARMER for Feb. 15th, and says: "Say to Mr. ADAMS that I have the ground cherry, or more properly called the strawberry tomato, and that by another season, I could supply any that would want the seed. The fruit is very delicious for canning or preserving. We think likely that Mr. ADAMS referred to a different plant. Mrs. McDONALD is speaking, no doubt, of the cherry tomato, and we endorse all she says of it, while we understood Mr. A. to refer to the ground cherry (*Cerasus chamoecerasus*), which is not found, we believe, in this State. There is, however, a ground cherry (*Physalis viscaria*) but the fruit is not edible, and the plant is a nuisance, when it gets in the garden."

J. M. Hargrave, Richmond, Kansas, asks: "Is the black locust poison?"

Mr. H. gives some instances of colts eating the bark, and following this were symptoms of poisoning. We know nothing positive in regard to this, but never heard this tree accused of possessing poisonous properties. The subject is open for debate.

Peter Rogers, of Atchison, Kansas, writes: "My hogs are some of them becoming stiff and walking like a foundered horse, with their noses down, and scarcely have any appetite, eating very little. Please inform me as to what is the matter with them, and what the cure is if any, and also what is good for the mange, through your paper. Those having the mange did not sleep in straw or dust."

We cannot imagine the cause of the stiffness in Mr. ROGER's hogs, unless it be a rheumatism, induced by extreme cold. A hog is not liable to founder, in fact do not believe they can be foundered, as their digestive apparatus is similar to that of the human, and an over gorge of food produces sleep.

If the hogs are costive, as they probably are, we would advise giving one or two doses of sulphur and cream tartar, say one pound each for eight hogs, and feed them exclusively upon bran wet up with hot milk or water, and allowed to stand until cold before feeding. Mange is caused by sleeping upon wet straw, fodder, hay, or manure, and also lack of vegetable food. Give the hogs turnips, carrots, beets or potatoes, in considerable quantities; wash well with clean warm soap suds, and then sponge over the backs, with a solution of carbolic acid one part, water eight parts. Two or three applications will be enough.

Newton Man, Newton, Kansas, asks: "How can bones be made useful to the farmer, and what is the cheapest and best way of reducing them to bone dust? If done by machinery, what would be the probable cost of a mill?"

Bones can be made useful to the farmer in various ways, and there are mills made for the express purpose of grinding bones, but we are unable to say what they will cost, or where they are to be obtained. Bones are valuable as fertilizers, from two causes. First, because they are rich in gelatine, a

compound rich in nitrogen; and, second, from the phosphate of lime they contain. The latter is obtained by simply burning the bones until nothing but the earthy part remains, which is phosphate of lime. This is easily crushed, or pulverized, and is to be applied to the growing crops, like plaster, but it should be finely pulverized first.

But in making this phosphate of lime, we destroy that part of the bone that is most valuable, viz., the nitrogenous part. If fresh bones are ground in a mill to an almost impalpable powder, it makes one of the best manures that we can get. When burnt bones are ground and treated with sulphuric acid, we have the famous super-phosphate of lime, that is so highly valued by Eastern farmers. But notwithstanding its great value, we doubt if it would be good financial policy for one of our farmers, possessing land naturally so rich as ours, and having a soil and climate so thoroughly adapted to clover (one of the best of manures), to go to the expense of buying a mill, gathering and crushing bones, and treating them with the acid to obtain it.

We can, however, direct our correspondent how he can prepare bones, if he has enough patience, so as to make them valuable, with but little expense. Gather fresh bones, and break them up as well as you can with a hammer. Pack them in a cask or barrel, first a layer of bones, and then a layer of strong wood ashes, and in this way fill up the barrel. Keep the ashes damp, and once or twice a month sprinkle on top with a little sulphuric acid. This will prevent the escape of the ammonia. In about twelve months, the bones will be in a condition that they can be easily pulverized, and may then be applied to the crops. But as we have intimated, we cannot conscientiously advise any of our farmers to adopt a manure that requires so much labor and expense to attain it, when we have others that will produce equally good practical results, with comparatively little labor and expense.

A Correspondent, Anderson County, Kansas, writes "There is some land in this county called College land. Whom should I address to obtain information in regard to it?"

We addressed Hon. I. T. GOODNOW, Land Commissioner of the M. K. & T. R. R. touching the subject, and he replies, *that there is no College land in Anderson county.*

M. Wickle, Erie, Neosho County, Kansas, asks: "Will it pay to raise broom corn, and if so where will I find the best markets? How should it be cultivated, and how prepared for market? What is the usual price, and what the average yield per acre? How many pounds of seed are required to the acre?"

We have answered these questions quite fully heretofore. Briefly, broom corn requires about the same cultivation as common corn. It needs a light, loose soil, with but little clay. The ground should be well broken, and thoroughly pulverized, and planted as soon as danger of frost is past. Plant in hills three feet apart, in rows three, or three and one half feet apart. Put in enough seed to insure at least five stalks to the hill.

Weeds must be kept out. Break the tops about one foot below the brush, as the seed is going out of milk, and let them hang until fully ripe, when it is cut, and when dry, the seed threshed off on a hetchel. The straw should then be baled in bundles of convenient size for handling, great care being required to keep the straw perfectly straight. In making the bales, the butts are kept to the outside, the brush all inside. It is a hard crop to handle *just right*. The crop varies in price, from \$40 to \$300 per ton, and the average yield is about five hundred pounds to the acre. It takes about two quarts of seed to the acre, perhaps a trifle more. We have one or two firms in this city, handling the straw, where no doubt a good market can always be obtained for it. St. Louis and Chicago both buy large quantities.

J. H., Springfield, Kansas, writes us an excellent communication in regard to planting trees in a

hedge row, and we regret that we cannot publish the whole of it.

He says: "Every person planting a hedge, desires to make it ornamental as well as useful, but I would advise other means to accomplish this, than planting trees in a hedge row. In my opinion, nothing can add to the beauty of a neatly trimmed, well kept hedge, perfectly straight, and of an even thickness the whole length; and if one wants forest trees, plant them in groves over the farm."

Which we think very good advice.

J. W. Martin, Ladore, Kansas, takes the same view upon permitting trees to grow in the hedge row, that does J. H.

He says: "It should not be done, nor should any plants be permitted to grow above the main line. I have seen it tried repeatedly, and always with the same result, viz., a weak place in the hedge.

My plan of growing a hedge is briefly as follows: A hedge row needs the same cultivation that you would give a row of corn or potatoes, and a knife should never be put to a hedge until it is three years old. Then plash it by nicking the plants on one side with a corn knife, and bend them over. This should be done in early Spring, and that season the plants will put up shoots at nearly every bud. The plashing should be done now. Keep the new shoots trimmed to about four feet high, which should be done the same season they grow.

THUS far we have not received a single complaint from any of our agents in regard to the premiums we have sent out. They give universal satisfaction. We hope all our agents will renew their efforts to extend the circulation of THE FARMER still more.

European Correspondence.

AGRICULTURAL DEPARTMENT.

More about the Cattle Plague—An Infallible Cure—The Chemical Manures—A Substitute for Saltpeter—Beet Sugar, &c., &c., &c.

PARIS, FRANCE, March 7th, 1872.

What with new and crushing taxes, demands on their charity, patriotic appeals to their pockets, civil war on the point of breaking out, and the cattle plague, French agriculturists are not to be envied. Political changes have brought to the surface a new Minister of Agriculture; no one can accuse him of possessing any acquaintance with the duties of his office; he is full of good wishes for the success of his task. The Government, despite a well nigh and naturally empty exchequer, has decreed the continuance of the regional exhibitions of produce, for groups of twelve departments. The exhibition for this year is not yet fixed, the presence of the distemper making the competition of live stock a hazardous experiment.

Relative to the cattle plague, it is a shade less severe. Official statistics of the extent of the disease cannot be relied upon; it may be the result of a good intention, but the authorities have not told the whole truth; nor do their local representatives display much alacrity to compile the required returns. Among the agents accused of spreading contagion, a M. BONLEY classes "cats, pigeons, rats and mice"—dogs have been old offenders. There is more of a good intention than vigilance generally shown to stamp out the malady. In one parish, a drover has been convicted of culpably introducing diseased animals; not only has he been fined and imprisoned, but will be held liable for all the losses farmers may experience by his willful violation of the law. A cattle plague congress is to come off at Vienna, where representatives from European States will investigate the cradle of the disease, known to be in Hungary, Galicia, and above all, in Southern Russia; and to concert measures to prevent its accompanying the transport of cattle to the west of Europe.

Mr. HAMOIR has at last given publicity to his

"infallible cure" for the plague. It is not complicated, nor costly. He asserts that even in the case of cows several months in calf, no danger is to be apprehended; and the treatment he lays down should be followed for upwards of fifteen days after the evil has been conquered. His plan is preventive. If the animal shows signs of weakness, supply it with nourishing food, of which meadow hay and warm mucilaginous drinks should form the base. If there be symptoms of plethora, administer every five or six days one ounce of glauber salts in the drinks, till the eyes become lively and the secretions natural. The lower parts of the walls of the sheds and the outsides of the troughs should receive, once a week, a slight coating of tar; and once a day, mixed with the drink, a table-spoonfull of phenic acid. On the disease appearing, a dose of thirty grains per head, to be increased to forty-five, of arseniate of soda, dissolved in warm water and sprinkled over the fodder some hours before use. The loins to be daily rubbed, or the dry friction may be made with the curry-comb. Later, spirits of camphor and-turpentine are to be employed, repeated in proportion as the animal exhibits coldness at the ears and horns. In case of constipation, an injection may be given. The symptoms of the disease are—running of water from one or both eyes, secreting of stringy matters at the nozzle, and fetid excretions. The duration of the treatment is a fortnight; and after the symptoms are attacked, relief sets in within a day, by the animal gradually recovering its appetite.

M. GEORGES VILLE has published a preface to the fourth edition of his work on Chemical Manures. His theory is, that knowing from analysis the amount of mineral and nitrogenous matters extracted by crops from the soil, all that is required is to restore the amount carried off; that farm-yard manure is something next to superfluous rubbish. In support of his views, he is armed with the result of 2,500 new experiments, made in several parts of Europe, and points to the vast extension of manufacturing for special manures, and the increasing price of the latter, as the consequence of increased demands, as evidence that his theory is extending. Saltpeter, he ranks as first in importance, and attributes its high price to earthquakes in Peru and the wants of war. Actuated by economic motives, he has been led to find a substitute for saltpeter, and at the same time to modify a little the inflexibility of his doctrines respecting the use of saltpeter. Excepting in the case of tobacco, this salt can be replaced by a mixture of three parts of chloride of potassium and two of sulphate of ammonia; and in price there will be a saving of one-fifth. Alone, chloride of potassium is excellent for clover and lucern; but for cereals, nitrogen, in the form of sulphate of ammonia, is necessary. His new standard formula consists of 3½ cwts. superphosphate of lime, 2 chloride of potassium, 3½ sulphate of ammonia, and 2 of gypsum—in all, 11 cwts. of this mixture per acre, costing 120f. In Autumn, he would apply one-half the quantity to cereals, adding in Spring, if necessary, the sulphate of ammonia alone, at a rate varying from one-half to one and one-half cwts. per acre. In any case, the drier the season the less of the compound.

Observing the rapidity with which the most impure water parts with its offensiveness, after trickling a short distance over the soil, M. VILLE recommends that, in future, chemical manures should not be incorporated with the soil, but strewed on the surface, close to the plants. His plan has so succeeded, that an agriculturist in the south of France has abandoned rotating crops, for the cultivation of grain in succession.

His remarks upon the soluble and insoluble phosphates contain nothing new, from what I have already informed you as broached by German experimentalists.

In the cultivation of beets for sugar, M. VILLE recommends chloride of potassium also; but he adds saltpeter to the formula stated above, at the

rate of 2½ cwt. per acre, by diminishing the sulphate of ammonia by one-half, and the gypsum by one-third. Common salt is positively injurious for beets intended for the sugar mill, the loss of saccharine matter being in the proportion of four to every one of that of salt. Experiments made in Poland, on a large scale, testify to the value of chloride of potassium as a manure for beets. It is a salt very generally employed by German farmers, and the roots so raised are excellent for feeding and distilling purposes. Its effects upon the production of sugar are not yet conclusive.

CORRESPONDENCE.

FAT VERSUS LEAN.

BY OO-BO-LO.

EDITOR FARMER: A word in the interest of calves, as an act of humanity, may not, at this season of the year, be out of place. It was uttered by an Irish breeder, when called upon for advice by one young in the business.

"As a breeder, you must be careful not to lose the calf-flesh. If you do so by starving the animal at any time of his growth, you lose the cream—the covering of flesh so much prized by our retail butchers. Where do all the scraggy, bad-fleshed beasts come from, and what is the cause of their scragginess? It is because they have been stinted and starved at some period of their growth. If the calf-flesh is once lost, it can never be regained. A great deal of tallow may be got internally by high feeding, but the animal can never again be made one that will be highly prized by the retail butchers."

This agrees with, and reminds me of the remarks of one of the speakers at the recent "Farmers Institute," held at the Kansas Agricultural College. After uttering some earnest words in behalf of the domestic cow which previous speakers had condemned, he is reported to have said: "Sir, if my reading has not misled me, the foundation of your domestic cattle was the graceful, vigorous Devon—one of the oldest and purest races of cattle in the world. The Plymouth and Massachusetts colonists brought them with them; they brought none others. In 1681, and the five following years, Captain JOHN MASON imported to New Hampshire a number of Danish cattle—another pure and vigorous breed. These were crossed, and soon became the cattle of the colonies. The subsequent ingattings were the small-bodied, black cattle, from the Spanish Islands, and the English cattle, with and without pedigree. The latter came in in two ways; first, by the importation of blooded stock by importers and breeders, and second, by passenger vessels. The last were generally good milkers, and were purchased in Liverpool market by ship stewards to furnish milk for the voyage. Hundreds of good Yorkshire short-horns, and "Yorkshire brindles" came in this way, and were mixed with our Devon-Danish blood. Sir, here was a noble "made up" breed, and your shorthorn is nothing else. Nothing bad about it, but the black Spanish, and that, I admit was scrub enough. But how have our fathers, and how have we treated our cattle? We have asked at this meeting, "What to do with our corn," while our calves and two-year-olds are let starve for months together. But notwithstanding this neglect in feeding, and greater neglect in breeding, we have ever and anon a cow that breeds back and produces a milker equal to the best of your blooded stock.

Again sir, your "marbled" beef is found, often found, on the native ox. Feed your cattle from calfdom to killing time. Never let them go down to death's door, and you will see it on shambles often. But neglect your cattle when they are growing, and then fatten, either upon grass or corn, and as the muscle is hard and compact, the fat must be put upon the outside or the inside of the lean; and by all lovers of good beef, will be consigned to the receptacle for soap fat."

The sentiments of the Irish breeder and the native cow's apologist and defender, although uttered over four thousand miles apart, are in full accord; and are as true in theory, as they are cogent in diction.

Time was when consumers paid little attention to the selection of their meats, but that time is passing away, and fat creamy veal, and marbled beef, are sought for in America, east and west, as well as by the denizens of the "Sea-girt Isle."

Surely monetary considerations, if none others, will soon check the "penny wise and pound foolish" policy, which has been rampant so long.

THE BUCK CREEK FARMERS' CLUB.

BY JOHN M. COTTON.

EDITOR FARMER: The Club assembled at the usual hour, President J. W. MAIN in the Chair.

The subject for discussion was "Fruit Trees: how and when to plant; also, their enemies."

The Secretary read an Essay on "The Ravages of Insects on Fruit Trees." He described the tent caterpillar. Said he had known them to destroy peach, cherry and plum trees, and had no doubt but that they would destroy apple trees. He said the only way he knew to rid the orchard of these pests, after they had hatched out, was to go through with a stick and kill them all; but the better plan is to go now, while the eggs are yet in their case on the limbs, and pull them off; take them to the house and burn them.

The next was the borer. He said: "A great deal of damage is done every year to orchards by this pest; and considerable damage is done to the trees by inexperienced fruit-raisers, in their endeavors to kill the little things. In regard to this insect, I will copy from the remarks of Prof. J. B. LYMAN, before the American Institute Farmers' Club, at its session of June 13, 1871. He says: 'To know how to master the borer, we must be acquainted with the nature and habits of the little rascal. About the 4th of July a white miller is seen hunting for a soft place in the bark of trees. She is the mother, and is on the look-out for a place where her eggs will hatch, and where the little worms may find food convenient for them. The favorite place is at the neck of the tree, and especially the peach and apple tree.'

"Now, there are three ways to keep the creature from laying her eggs in the soft bark: First. By banking the earth about a foot high around the bottom of the stem or trunk. 2d. By wrapping the bottom with tarred paper tied on, and held at the bottom with earth. 3d. By making a strong suds with carbolic soap and washing the parts, or piling such offensive stuff as gas lime, about the tree, or using a wash of sulphur. If, however, the eggs are laid, and the worms hatched out, and begun to eat, there is no cure but to dig them out and kill them."

The essayist also quoted from *Fulton's Peach Cultivator*, which corroborated the statement made by Prof. LYMAN.

The essay also gave an account of the rascal leaf crumpler. Advised going through the orchard in the winter, and picking off all the bunches of leaves.

Mr. MCKIBBEN had been making a few observations through his orchard. Had noticed the leaves rolled up, but did not know what it was. Also, the limbs bored. The last year's growth, the limbs break off.

[On page 87 of THE KANSAS FARMER, 1871, the Editor, in describing this little borer, calls it "The apple twig borer," and says: "In our next number we will give a more detailed account of the habits and history of this rather anomalous borer." And upon examining the next number I found nothing in regard to it. Would like to have an account of it.—SEC'Y.]

Mr. MCKIBBEN continued speaking of the borer, and said that he had used soap suds on his trees, and had no difficulty.

Mr. JAMES COTTON said he used soap suds on his trees. Had never lost anything by borers. He put ashes around the trees.

Mr. HUNT had a universal remedy for all kinds of insects. Had learned it from a gentleman from Kentucky. A railroad ran through his orchard, and the trees near the road did better than those farther off. He then put blasts in some stumps and fired them off. Was not troubled any more. Mr. H. said he had not tried it, but thought it worthy of a trial.

Mr. JAMES COTTON wanted to know about prairie farmers, who had no stumps.

Mr. HUNT—Haul rock.

Mr. TAFT said he favored the plan. Could get anvils; or if not, they might get a young cannon, and plant it in a convenient part of the orchard. (Laughter.) Mr. TAFT said that soap suds was a good thing to kill the bark louse.

Mr. MAIN thought that the case Mr. HUNT spoke of could be explained as follows: Trees need iron; and the wearings of the rails furnished it. Ashes are good things for trees. He had noticed the leaf crumplers. Intended to keep a few, and see them begin life.

Mr. MCKIBBEN said that some men whitewashed their trees, but he did not believe in it. The bark of the tree wants to be kept clean.

The following resolution was introduced by Mr. JOHN M. COTTON:

Resolved, That we are opposed to the passage of the Herd Law bill, as discussed in our Legislature.

The resolution was discussed with considerable vim, and only one member opposed—Mr. JAMES COTTON, who exhibited figures to prove his point, showing the great cost of fences to the State. He thought Kansas would do well to pass the law.

The resolution was passed, with but one dissenting vote.

Buck Creek, Jefferson Co., Kan., Feb. 17, 1872.

[NOTE—The above report should have appeared in the last number, but was crowded out.—ED. FARMER.]

THE CULTURE OF TOBACCO.

BY AUGUSTINE HOLLAND.

EDITOR FARMER: I choose the subject of Tobacco raising—the mode and manner. I will give a full detail of the subject. I believe it to be the most profitable crop that can be raised in Kansas. The crop will bring in market from fifty to one hundred dollars per acre—four times the amount we can make raising corn, or any kind of grain.

Procure the best seed, of the largest variety. Go into a thin place in the timber, make a fire of the brush-wood; keep piling on brush, dragging it around, till the ground is burned three inches deep. You want a rod square to each acre you may want to plant. Then rake the fire off. Then dig up the ground, and sow your seed, about one spoonfull to the rod. Rake in your seed, and then tramp in the seed well. You can sow the seed up to the 10th of April. About the 1st of June commence setting out the plants, in the best land, that is free from weeds. New ground is the best. It should be planted in rows, three feet one way, and drill about two feet the other way. Press the earth to the fine roots, when planting. Set out the plants in rainy weather. If too dry to plant, I water the ground where I want to set in the plant, and cover up for a day or two, taking the covering off at night.

Commence plowing and hoeing as soon as it has taken root, keeping all the weeds subdued; for weeds and tobacco don't do well on the same land. It will pay to cultivate well. As soon as it buttons out, say two feet high, then top low, if you wish to make big leaves at the top and heavy tobacco.

Leave a few of the best plants for seed, stripping the leaves off one-third at top of the plant. Then the seed will be better, and the balance of the leaves on the plant will be good.

About ten days after topping, you will have to commence to sucker. At the top of the plant keep all the suckers off, or the tobacco will damage; and as you go through suckering, look for worms, as at

this time they will be at work. Turn up the leaves and look, wherever you see a hole eaten through the leaves. In three to four weeks, commence stripping the bottom leaves, which ripen first.

Whenever the plants rattle and rustle like silk, they are ready for harvesting. Hang on sticks four feet long. In hanging, the faces of the leaves should be kept together. Hang in the open air eight or ten days, and then hang under cover, not too near together. It must be cut and cured before frosty weather comes. Select a damp day, and tie in hands, and pack down in bulk, keeping the leaves from wrinkling. It must not be handled when the weather is too damp; and if it gets too warm, it must be taken up and allowed to dry out somewhat.

Tobacco can be quickly cured by kiln-drying, but it requires great care.

Coffey County, Kansas, March 16, 1872.

THE TREE PEDDLER QUESTION.

BY G. W. THOMPSON.

EDITOR FARMER: In your issue of February 1st, I read an article entitled, "Truth well Spoken," by Mr. JOHN ENDSLEY, of Franklin county, commenting on certain legislation for the protection of nurserymen. He seems to think they are not worthy of any protection from losses.

I wish to say a few words in answer to this article. Mr. ENDSLEY reminds his brother farmers that there are good nurseries within reach of all of us in Eastern Kansas. He should not be selfish. They are not within reach of all within the State. Many are wanting and in need of hedge plants, fruit trees, who are living from fifty to one hundred miles from a nursery. A nurseryman would meet with but poor success in disposing of his stock, if he depended only on those who came to the nursery to purchase, if he had much of a stock. Therefore, the nurseryman finds that he must enlarge his stock, to make it profitable, and employ traveling agents to procure orders for nursery stock—this being a class of goods that is necessary to be contracted for before being taken up. The orders are procured, the stock taken up, orders filled, labeled, shipped to the point of delivery, according to the contract on the part of the nurserymen and agents, and freights paid upon them; and here is where the loss comes in. This is the loss which the nurseryman should be protected against by legislation.

How can they do it? By enacting a law that no personal property shall be exempt from the payment of nursery stock. Why not? Live trees and plants are perishable stock, and must be contracted for before being taken up. I believe that if no protection is given to nurserymen, many of them must go down. Who is willing to take the chances? Not I. Would Mr. ENDSLEY?

Again, he says: "If discrimination by legislation is had, should it be to protect the nurserymen? or should it not rather be to protect tree buyers against those button-holing, brazen-faced tree-peddlers?" What does he mean? Does he expect to pass a law to stop people from selling?

Mr. E. speaks of falling into the hands, at one time, of one of those unmerciful, brazen-faced tree peddlers—intending, as I understand it, to impress in the minds of your readers that their business is a disgraceful, dishonorable and dishonest calling, and needs no protection. Some varieties he got proved not true to name, &c. I am aware that the agent is often accused of what he is not guilty. The nurseryman alone is accountable for varieties true to name, &c.

Nurserymen and their agents have suffered heavy losses, by causes mentioned above. I have known agents who were selling on commission, lose their whole Summer's work, by the same cause. I have found men who had been living in the State ten years and over, who said they never saw or heard of an apple tree bearing, and did not believe they could be raised in Kansas. I am sure the agent who enlightens and succeeds in selling to such men

would be doing them a great kindness, as well as a benefit to them and their neighborhood, and deserves credit for it. I never found THE KANSAS FARMER at those places.

I believe I am safe in saying that nine-tenths of the fruit trees now growing in the State (seedling peach trees excepted) were sold by agents—those unmerciful tree peddlers Mr. ENDSLEY speaks of.

The agent works for the improvement of the whole country wherein he travels, and induces many to purchase and plant, who are always putting it off from year to year; and perhaps some who never would plant. Some are always talking of going to a nursery to purchase, but never do. How is this? Would you turn a cold shoulder to the tree peddler, and treat him like a dog—the very man who is building you up—this same unmerciful tree peddler? God forbid!

Topeka, Kansas, March 25th, 1872.

PLEASANT RIDGE FARMERS' CLUB.

BY W. F. GOBLE.

EDITOR FARMER: The Club met at the usual time and place, the President in the Chair.

The President announced the Standing Committees, as follows:

1. Soils and their Management—W. F. Smith, H. F. Roach, William Henderson.
2. Cereals and Grasses—W. H. Hastings, Isaac Sanderson, A. Knapp.
3. Vegetables—Francis Goble, G. W. Mitchell, Perry Ward.
4. Fruit Trees—H. C. Squires, David Herley, Jacob Gaiser.
5. Hedges and Fences—W. F. Goble, P. Winchell, G. W. Witham.
6. Noxious Animals—L. C. Kincaid, R. E. McClarren, L. Payeur.
7. Farm Buildings—L. G. Sholes, J. D. Corey, William Buchanan.
8. Farm Implements—C. Moser, J. W. Broadus, John Dickson.
9. Useful Animals—L. Kennedy, Al. Goodman, Horace Keyes.
10. Miscellaneous—Claude Kincaid, W. C. Rhea, Mr. Mottin.

These committees are required to report in order, and one or more will file a written report at each stated meeting.

The resolution for discussion during the evening was the following:

Resolved, That the laws requiring fencing in this State should be repealed.

Mr. SHOLES was the first speaker. He referred to the great efforts of the people in our newly-settled districts to secure the passage of herd laws by the Legislature, for their protection. The reasons for this were plain: They not only had but little timber, but were too poor to devote their time to making fences against their neighbors' stock, that ought to be employed in the production of food to sustain themselves and families. He maintained the fundamental right of every man to be free from the trespasses of his neighbors' property, and he thought it strange that we should be required to protect ourselves from the ravishment of our premises by the community, when the duty of that community was to protect us itself. Poor people from the East were deterred from coming to the State, on account of the labor they must expend in fencing. He thought the loss occasioned by the breaking in of stock, to be greater than the value of the stock. The cost of fencing is as great as our taxes. He thought even Eastern Kansas would be benefited by the abolition of the fence laws; and, in addition to all of the considerations that have been offered, perhaps a greater one lay in the destruction of our scanty forests for timber with which to build fences.

The writer was the next to speak. The idea that originally led to fencing in this country was obvious: the first settlers came from old and populous countries, where land was owned, or tenanted, in very small bodies, and was too precious to be wasted by the incumbrances of fences; while here was

found a vast continent, uncultivated, groaning under the bounties Nature had provided for limitless numbers of domestic animals, and but few people sufficiently civilized to turn it to account. Instead, then, of confining a few head of stock on their own premises, and spending their whole time in raising provender to feed it the year round, they conceived the better idea of enclosing their farms and raising unlimited herds on the vast common, where feed cost nothing. Could any one doubt that this was the sensible plan then? He thought the rule was equally good now, especially in Kansas, a region which, in its adaptation to stock-raising, is scarcely inferior to any other in the world.

For instance, there is the western half of the State, which, under the present state of agriculture, is utterly unfit for farming purposes; and yet, it is unsurpassed as a grazing country, and bids fair to become a vast stock emporium. It is evident that the few out there who are miserably failing to raise anything on their one and two acre farms, should not be permitted to disturb the industry of the whole district, by a repeal of the fence laws. As for Southern and Southwestern Kansas, the speaker had taken a tour through that section last Spring, while the different counties were voting on the herd law. He had expected to find the people almost unanimous for the herd law; but it was altogether different. In some counties it could not be carried at all, and in others only a bare majority could be obtained. The supporters of the herd law were those who had no stock; its opponents, the other class. Even in that section the people are, probably, opposed to the abrogation of the fence laws.

With respect to Eastern Kansas, the more heavily settled portion of the State, the speaker remarked that we had extensive ranges for stock which would never be converted into farms; and the benefits of these would be lost, if the fence laws were abolished. And besides, our fencing is already done to a great extent.

As to the general importance of adhering to the present system, reference was made to the fact that forest timber in our State has always been scarce, and that we have had the reputation of being subject to drouth. Statistics show that, in other States, the destruction of the forest growth decreases the moisture of the climate in proportion. The observation of the old settlers in Kansas, as well as statistics, shows that we are steadily improving in this respect.

Now, fencing here must be done mainly by hedging. The hedge plant is a species of forest tree. It then, has had a large share in the improvement of our climate, already; and, as the present laws will cause thousands of miles yet to be grown, that would not otherwise be thought of, still greater improvement may be expected. Then, we need it in our bare prairies as a protection to our orchards and crops, and the country generally against winds. When the density of our population reached that of Europe, we might abolish the fence laws.

Mr. HASTINGS introduced figures to show the enormous cost of fencing. His argument was very good, and could not fail to set his hearers to thinking.

Messrs. SMITH, L. C. KINCAID, SQUIRES and MOSER, each made a very interesting argument. Mr. SQUIRES, however, made the point that the abrogation of the fence laws would soon stop the raising of stock almost entirely. This had been the result in Nebraska, where the herd laws were in force. Stock was driven away, and it never returned, and none was raised to take its place.

The decision was in favor of the negative.

The following resolution stands for discussion at the next meeting, on the 21st instant:

Resolved, That the State of Kansas is better adapted to raising Stock than grain.

Mr. HASTINGS has the affirmative; Mr. SQUIRES the negative.

Several new members were added, and the interest increases. Look out for a large Club.

Pleasant Ridge, Kansas, March 16, 1872.

The Kansas Farmer

FOREST TREES FOR Shelter, Ornament and Profit

BY
ARTHUR BRYANT, SEN.

THIS IS THE MOST THOROUGH AND PRACTICAL work ever written upon the subject, and should be in the hands of every Farmer in the State of Kansas. It tells you

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FARMERS' CO-OPERATIVE ASSOCIATION.

A large number of the farmers of Farmington, Atchison county, Kansas, recently held a meeting and organized a co-operative society, for the purpose of better protecting their interests. The objects, as set forth in a series of resolutions, are:

To combine and purchase goods needed in large quantities, thereby saving the per centage that now goes to the middlemen. Also, to sell their produce in bulk, and at proper times, to secure the best prices. To employ the most competent persons of their number, male and female, to select the articles for family consumption. To hold regular meetings, for the discussion of such subjects as are of general interest to the farming community.

Two meetings have already been held, and considerable stock pledged. Another meeting is called for the 24th inst., at which time it is proposed to complete the organization, and when, we presume, officers will be elected.

In this connection we wish to say, that we shall be pleased to hear the views of farmers upon this and similar organizations, expressed through the columns of THE FARMER.

It is well known that we have already a national organization, whose purposes and objects are similar to this; and if a system of co-operation is beneficial to farmers, it can best be reached by a unity of action all over the country.

The question is, Would the farmers be benefited by a co-operative organization? Let us hear from the farmers themselves.

CAN KANSAS BEAT IT?

From a private letter from JOSEPH HARRIS, the author of "Walks and Talks on the Farm," in the *American Agriculturist*, we extract the following:

I am having capital luck with my pigs (Essex) and lambs this Spring. I have just had a grade Gotswold lamb dropped from a common Merino ewe, that weighed six hours after birth, *fourteen pounds*. That is almost as good as some of your Kansas productions. If I can get away, I want to come and see something of Kansas and the West this Summer.

We doubt if Kansas or any other State can produce a lamb at six hours old, that will beat this one.

We are glad to know that Mr. HARRIS contemplates a visit to Kansas. He has hosts of friends and admirers in the West, who have read his writings for years with pleasure and profit; and there is probably no agricultural writer in this country who has written so much, and who has been criticised *so little* as JOSEPH HARRIS, and there is probably no man in the country who has done more to elevate the standard of Agriculture than he. He will be welcome to the West.

FAIR.

The Holt County Fair is to be held at Oregon, Mo. September 3rd, 4th, 5th, and 6th. So we are informed by the Corresponding Secretary, T. C. DOUGAN. The people of Holt county know how to get up good Fairs.

DOUBLE ZINNIA.

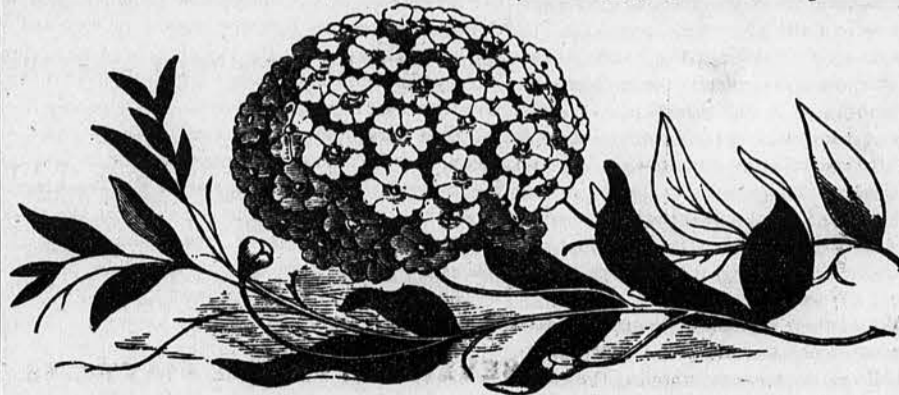
This brilliant annual is too well known to need a description. They bloom profusely, and continue in bloom a long time. They thrive well in any good garden soil. The large engraving annexed represents the flowers the natural size. Plants may



be started in a hot-bed, or in the house, and transplanted when the ground is warm. We especially urge our readers to try the Zinnias.

ABRONIA ARENARIA.

The engraving below represents one of the most beautiful perennial trailers. The flowers are of a



pure waxy yellow, with a fragrant verbena-like odor. Season of bloom, from August to October. The seed should be sown under glass, and the outer skin of the seed may be peeled off, to advance germination. A beautiful plant for hanging baskets. In our judgment, it is well worth a trial.

STATE BOARD OF AGRICULTURE.

In another place we publish the Act of the late Legislature, enabling the officers of our State Agricultural Society to organize themselves into a State Board of Agriculture. At a recent meeting of the Society the proper action was taken, and they are now

known as the Kansas State Board of Agriculture.

At a future time we may present our views as to the wisdom of this course.

PREMIUM LIST.

We have received an amended Premium List of 1871 of the State Fair, which we suppose to be the Premiums offered for 1872.

We notice that Premiums of last year on Shorthorns are reduced somewhat. The leading Premium last year was one hundred dollars; this year it is reduced to seventy-five dollars. Jersey Cattle are brought down from fifty dollars to twenty-five dollars. Devons, Ayreshires, and Grades, are left the same. All the horse rings, except thoroughbred stallions, are considerably reduced. Hogs, sheep and poultry remain the same.

We shall notice the Premium List more at length hereafter.

ROUEN DUCKS.

We present, on the first page of this number, a beautiful engraving of the Rouen Ducks.

Their name is derived, no doubt, from the city of Rouen, on the river Seine, in France; but why it is so, seems to be in doubt, as they have

not been bred there to any greater extent than in many other places, both in England and France. The Rouen is a cross of the wild Mallard duck and old-fashioned brown duck; and by careful breeding has been brought up to one of the largest, hardiest and most valuable of the duck tribe. They are

good layers, but not good mothers, and hence, the eggs should be set under hens. It is a mistake to think that a stream or a pond is necessary to the successful raising of ducks.

Some of the best breeders in

the country argue that they do best with simply a small tub or pan filled with water, set in the yard and frequently changed.

NAMES may be added to a club at any time after it has been sent in, at the same rates of subscription.

shall be, and are hereby constituted the State Board of Agriculture, who shall continue to hold their offices the terms to which they have been respectively elected, to wit: The president, vice president, secretary, treasurer, and one-half or five of the executive committee, until the second Wednesday of January, eighteen hundred and seventy four, provided said society alter or amend their constitution in such manner as not to conflict with the provisions of this act. The governor and secretary of state shall be *ex-officio* members of the State Board of Agriculture.

SEC. 2. That every county or district agricultural society, composed of one or more counties, whether now organized or hereafter to be organized, under the laws of the State of Kansas, shall be entitled to send the president of such society or other delegate therefrom, duly authorized in writing to the State Board of Agriculture, to be held on the second Wednesday of January of each year, and who shall for the time being, be *ex-officio* members of the State Board of Agriculture, provided that each county or district society herein mentioned, shall have held a fair the current year, offered and awarded premiums for the improvement of stock, tillage, crops, implements, mechanical fabrics and articles of domestic industry, and such other articles and improvements as they may deem proper, and grade the said premiums so that it will be competent for small, as well as large farmers and artisans, to compete for the same, make out a statement containing a statement of the awards, and an abstract of the treasurer's account and report on the conditions of agriculture, in their county, to the State Board, said statement to be forwarded by mail or otherwise to the secretary of the State Board on or before the fifteenth day of November in each year.

SEC. 3. It shall be the duty of the State Board of Agriculture, together with so many of the presidents, or authorized delegates of the county societies, as may be in attendance, to meet at the Capital of the State on the second Wednesday of January, one thousand eight hundred and seventy-three and annually thereafter, and proceed to elect by ballot a president, vice president, secretary, treasurer, and five members of the State Board of Agriculture, who, when regularly convened, shall constitute the State Board of Agriculture, the president, vice-president and treasurer, shall be elected to serve for one year, and the secretary and members shall serve for two years from the time of their election.

SEC. 4. It shall be the duty of the State Board of Agriculture, to make an annual report of its proceedings for the preceding year to the Legislature, embracing a report of the State Horticultural Society, and an abstract of the proceedings of the county societies, as well as a general view of the condition of agriculture throughout the State, accompanied by such essays, statements and recommendations as they shall deem interesting and useful, which reports shall be printed by the State. The transactions of the State Agricultural Society, and the State Horticultural Society, shall be published in one volume, from the respective organizations of said societies, until the close of last year of said societies, *Provided*, That said printing shall in all respects conform to an "act providing for the election of a public printer, and prescribing the duties thereof" approved February 25, 1869; *Provided further*, That the said reports shall be bound in cloth, and shall not cost to exceed one dollar per copy.

SEC. 5. The number of copies of the report, as provided in the foregoing section shall be limited to three thousand five hundred. The secretary of state shall distribute the said report as follows: Two hundred and seventy copies to the State officers, twelve hundred and seventy to the Legislature, five hundred to the State Horticultural Society, five copies to the State library, five copies to the State Agricultural College, and fourteen hundred and fifty copies to the State Board of Agriculture, for

distribution among the agricultural and horticultural societies, mechanical associations, and farmers' clubs of the State.



ANSWERS TO INQUIRIES.

BY C. H. CUSHING.

EDITOR FARMER: Can you not give us some personal experience or observation of the culture, kinds and profits of Black Raspberries, in Kansas? and oblige W. W. COLE.
Dover, Shawnee County, Kansas, March 16, 1873.

I once had the notion that the Black Cap would not succeed in Kansas. Observing that the currant did not seem at home here, and having always seen them flourish under similar conditions, I reasoned that the Black raspberry would suffer from our extremely hot Summers and snowless Winters, and fail to produce paying crops. But an experience of several years has convinced me that, when the proper treatment is given, they do well. Probably there will be exceptional seasons of failure; for I doubt if a crop can be made, with a hot, dry atmosphere from the middle of June to the middle of July. Moisture in the earth is, in my opinion, of less importance than a humid atmosphere. I have grown the Doolittle, the Miami, and the so-called Mammoth Cluster, which so closely resembles the Large Miami that it would puzzle any one to detect the difference. The Doolittle is a little earlier, and of a brighter color; but, on the whole, the Large Miami is best. It comes in about the time straw berries go out, is a large, firm berry, of good flavor. Its growth is very strong, and it is perfectly hardy. I have not grown the Davison's Thornless; but from what I have learned of its behavior, I do not esteem it an acquisition.

CULTURE AND SOIL.

The raspberry loves a cool, moist, rich soil. Any system that will secure this, will give plenty of fruit. Plant in rows, about six feet apart—three feet in the row. The first year they may grow at will. The second year, cut the canes down to within a foot of the ground, and do not expect much fruit. The new canes that start should be thinned to three or four, and these pinched when they attain the height of three feet. They will throw out numerous side shoots. In the Winter or early Spring these should be shortened back to about six inches, and a fair crop may be grown. The same system may be continued, except that the canes may be allowed to grow a little higher. A thick, bushy growth I consider important, so as to shade the ground well during the fruiting.

Two modes of cultivation are used—both successful. One is to avoid all cultivation, by mulching heavily with old hay, and never disturbing it, but adding yearly as it decays. Where such material is plenty, this is the best of all modes. Too much can hardly be used—even if a foot deep. A little, partially covering the ground, is useless. Enough is needed to smother all weeds and keep the earth cool and moist.

The other plan is to stir the ground with the cultivator often, so as to keep it clean and mellow. A subsoil plow run through occasionally, when not in fruit, is good; and in the Fall a furrow may be turned each way toward the stools. If a good heavy mulch can be applied in time of fruiting, it will render the crop much more certain.

The rows may be trained to stakes or a low trellis—a single wire will do—or they need not be trained at all. If the thinning and pinching are attended to, the canes will expand into dwarf trees, and need no support.

Fifty bushels per acre is a good crop, though more is often grown. Profits will, of course, depend upon nearness of market, prices, and cost of

picking. Above twenty cents a quart, they will pay a good profit; below that, doubtful. It must be remembered that it takes two to three years to bring a plantation into full bearing, and during those years the entries are mostly on the wrong side of the ledger.

For family use, no one should neglect to grow them. They form a most delicious and wholesome dessert; and if pills, powders and potions were all dumped into the ditch, and good strong hedges of raspberries and blackberries planted around the house to keep out the M. D.'s, our prairie children would grow strong and rosy, but druggists would have a hard time.

SWEET POTATO CULTURE.—NO. II.

BY C. H. CUSHING.

SPROUTING—CONTINUED.

In our last, we left the potatoes nicely tucked up in their warm bed.

If all works well, in about ten days the sprouts will begin to push out, and in a week or so the bed will swell and crack open with the mass of shoots forcing their way up. Watch the bed, and at this stage, before the plant pushes through, cover all over again with from one to two inches of fine mellow earth, free from weed seeds, or with clean sand. Cover thickest where the bed is the warmest and the sprouts are pushing. In a few days the plants will appear.

If sash are used they may remain on the bed, unless the sun is very hot, when some air may be given in the heat of the day. If muslin or board covers are employed, remove them on clear days, unless cold and windy, and in all warm weather. Hay may be taken off altogether, unless the weather is severe.

Watering requires some judgment, on account of our variable climate. In still weather, with moderate sunlight, and a moist atmosphere, but little water need be given. But with scorching suns and drying winds, frequent watering is necessary. Never give cold spring or well water. Let it stand in the sun until warm, unless taken from a stream or pond. In dry weather, give a good soaking once in three days, or often enough to keep the bed moist—not wet. About four o'clock in the afternoon is the best time to water.

In about four weeks from bedding out, the plants will generally be ready to pull. If glass is used, the sash must be left off entirely, night and day, for three or four days before pulling, in order to harden the plant. Plants always need a week or more after they are well up, to mature. Before a plant is fit to pull, the leaves will generally, though not always, take on a dark color, and the stem becomes firm and hard. If the plants come up slender and weakly, they should be cut down, and will come up again more vigorous. A small plant will produce just as good potatoes as a large one, but is no so sure to live when transplanted, especially if the weather is cold and wet.

If the bed is well watered about twelve hours before pulling, it is more easily and rapidly done, and with less disturbance to the potato. Beginners should place one hand on the potato, and with the other carefully separate a few plants at a time, giving aside pull rather than upward. I can pull plants rapidly myself without holding the potato; but this requires experience. It is not safe to run any risk of disturbing the potato, as it checks the sprouting. Pull only the plants that are sufficiently mature; but it is better to take all that are large enough, and not skip about, taking a plant here and there. A number of plants start from one point, and if one only is taken, the others are often spoiled.

If the plants are to be kept for some time, or shipped, the roots may be dipped in *thin* mud—or better, dipped in water, and dry earth sprinkled over them; they should be kept in a cool place, filling around the roots well with damp sawdust. *Keep the tops dry.* If water is necessary, apply it

