

## DAIRY AND POULTRY.

### INTERESTING CHAPTERS FOR OUR RURAL READERS.

How Successful Farmers Operate This Department of the Farm—A Few Hints as to the Care of Live Stock and Poultry.

#### Dairy Notes.

One of the hard things that the manager of a creamery or cheese factory has to contend with is dishonesty among those that supply milk. Where milk is purchased by the hundred pounds this condition is particularly acute, and it even exists in considerable measure where the milk is purchased by the test. One cheesemaker tells of the trouble he has with his patrons that bring poor milk. He says that one man continually brought milk so near the souring point that it was sometimes impossible to use it, and once or twice it was returned. But the man would always come back smiling the next day and assert that the manager was wrong in sending back the milk—that it kept perfectly for a long time afterward. One day the milk brought was so near sour that the manager thought it necessary to refuse it. He thought, however, that he would be sure that this milk soured, so he slyly slipped into the cans enough rennet to make the milk thick in a short time. The following morning the farmer was back with a new lot of milk, but declared that the milk of the preceding day kept over night, and that some of it was used for making custard the next day. Of course, it was not policy for the manager to give away the fact that he knew the man was lying, or that he had put rennet in the milk. It illustrates one of the biggest obstacles in the way of getting clean milk.

Do not feed mostly hay to dairy cows, nor in fact any kind of fodder that is musty. Some believe that this mustiness will not pass through into the milk, and it may be so, but we are suspicious of the truth of the assertion. It is a fact that there is a difference in the flavor of butter made on June grass and the butter made in the winter when the cows are fed on dry hay. If this difference in feed makes any difference in flavor, why may it not make a good deal of difference if the feed be particularly bad. Moldy feed is a bad thing to have around in any case and should be thrown out. Using it as cow bedding is likely to make the matter worse, for the whole stable will be scented with it, and in the morning when the milk is drawn it will certainly be tainted and this taint will grow as the cream ripens. It is not advisable to use this for bedding and depend on airing the barn enough in the morning to get the smell out. This would be seldom done at all, and where some of the feed is generally done in a very imperfect manner. The presence of spoiled feed is very often the cause of poor butter.

Whether or not Americans will ever be able to build up a trade in London depends on whether they can so improve the great mass of butter produced that it will grade mainly as first quality. At present the amount of really good butter is said to be not more than 25 per cent of the whole, and this 25 per cent brings a premium in the American market. If all our product were of good quality, the best prices in this country would be much less than at the present time, but the rest of the butter would bring a very much higher price than at present. This, of course, is based on the supposition that conditions remain as at present. American butter might then enter the English market in competition with Danish.

Man wants frequent change of food, but not so our cows. They do best when fed the same ration constantly. The digestive system of the cow seems to adjust itself to a certain feed and to be unable to change readily. Thus, if silage be fed for a long time, a change to dry hay or corn fodder means a sudden falling off in the milk flow, and this flow cannot be restored by a return to the first ration. The plan, therefore, of putting half of the corn fodder into the silo and drying the other half has no advantage in it; and it is a positive detriment if the two kinds of feed are to be alternated. If the silo is large enough, it will pay better to ensilage the entire fodder crop than to dry half of it.

#### Hardiness in Poultry.

To The Farmers' Review: I desire to call the attention of farmers and farmers' wives to a few facts of considerable importance. It is without question true that, in all branches of stock industry, good blood is the key to success. In fact, in all business, whether mercantile or industrial, the best goods make permanent success. This is true also in poultry culture. Common hens, like cheap labor, are not to be depended on. The object of the poultry raiser is eggs and meat. To produce the former we have the Leghorns, Minorcas, Spanish, Hamburgs, and the like. For meat we have, if our aim be for roasting, superior qualities in the Plymouth Rocks, Brahmans, Cochins; and for broilers no better breed than the Wyandotte can be secured. Now, if we properly raise, house and feed these breeds, no cross-bred fowl can equal them. We have come to this conclusion after years of experimenting with both cross-bred birds and with pure-bred ones.

But some say, "when we use pure bloods, we have a great deal of sickness in our flocks, while our mongrels are always hardy." It is a pity that too often such is the case. What is the cause? I believe it to be due to inbreeding. Inbreeding is injurious to

the fowls the farmer wants to use. It may produce fancy specimens, but often they are physical wrecks. Why not keep our pure-bred fowls pure without breeding all the stamina out of them? Why not make each successive generation harder than the preceding one? Can this be done and how? It can be done by out-crossing, or changing the males. This would be called detrimental to standard breeding, but it is good common sense in practical culture. Out-crossing can be resorted to with unprofitable poultry, if the next year males of the same breed be again used.

The farmer has reached the stage when, if he cannot secure strong, hardy thoroughbreds, he resorts to cross-breeding. When they once get to crossing they get careless and cross males of the cross on females of the same family. It does not take long for this process to convert really good fowls into mongrels. Mongrels, dunghill or barnyard fowls are the result of hap-hazard breeding for generations. At length it becomes a matter of indifference to the owner as to their ancestry. What we need most of all is to bring only thoroughbreds up to the highest type of hardiness and utility. Then the farmer should use only pure-bred fowls.

I wish to touch on another question: Does it pay farmers to buy eggs for setting at a cost of \$1 to \$1.50 per 15? Yes. We will suppose that out of the 15 the farmer gets but seven chicks, three males and four females. The males themselves are worth twice the cost of the eggs and the pullets will be extra. EDWIN BURROUGHS.

#### To Breed Herd Headers.

A government report says: The man who is raising hogs to be sold for breeders cannot be too careful to use only such as come nearest the ideal for the breed; hence, from his point of view, defect in color, swirls, or a missing tail would be a serious blemish to the animal. The breeder of breeding animals can well afford to pay a relatively high price for an animal which is free from these minor defects, as his sales will depend largely on the general appearance of his herd, while the hogs of the pork raiser are sold by the scales. Boars should not be purchased until they are four or five months old, as they do not show their form fully before that time. They cost less at weaning time, but their purchase at that time is a lottery, as a promising pig often develops into an inferior and poorly shaped animal. It is not safe to delay the purchase until the boar is wanted for service, as others will be wanting him at the same time, and there may be delay in finding a desirable animal. The service is more sure and the boar can be handled with much less trouble if he has been on the place for a few weeks before he is needed for use. He should have time to become accustomed to his new quarters before he goes to service. The boar should never be allowed to run with the sows, as he will be a continual worry both to them and to his owner, and it is much better to keep him in a lot where he can neither see nor hear other hogs. He should be kept as quiet as possible, and his food should be such as will give him strength and vitality, but not too fattening. He will do better service when he has sufficient grazing to give him exercise, and only sufficient grain food to keep him in good condition without becoming so fat as to be heavy and unwieldy.

#### Michigan Dairy Inspection.

Here are three characteristic reports of the Michigan dairy inspectors:

F. A. Johns—Condition of cows, fairly good, but not very clean; feed, corn stalks, oat straw, hay, bran and middlings; stables, neat and clean; partly whitewashed, uses lime on floor; yard, wet and dirty; drainage, fair; ventilation, good; water, well; milkroom, neat and clean; uses an aerator.

L. L. Whipple—Condition of cows, good and clean; feed, cut stalks, hay and bran; stables, neat and clean; whitewashed; drainage from stables, poor; yard, fairly dry and clean; manure deep in front of stable door; ventilation, good; water, well; milkroom, neat and clean; cement floor in milkroom; uses an aerator.

G. S. Bancroft—Condition of cows, good and clean; feed, corn stalks, mixed hay and ground corn and oats; stables, clean and neat, but some cobwebs on ceiling; partly whitewashed; yard, fairly clean and dry; drainage, fair; ventilation, good; water, well; milkroom, neat and clean.

The adoption of a similar system wherever cows are kept would do much to improve our dairy products.

The time is coming when Americans will appreciate the hen and give her the amount of attention due her. It is surprising that on some of our farms the flock of hens does not exceed 25. These are easy to take care of, it is true, but the flocks should be much larger and still be taken care of. There is no better investment on the farm than that in the poultry establishment. With the increase of population the demand for poultry products is bound to increase, and this increased demand must be largely met by the American farmer rather than by the specialist in poultry raising.

The person that sets hens early must expect to put in some time in watching to see that all things about the nests are right. It is necessary to visit the sitters two or three times a day to be sure that none of the eggs have been rolled off into a corner of the nest and to be sure that the hens have not made a blunder and gone back onto the wrong nest. Such a visit should be made before dark to see that all things are right for the night. This care needs also to be exercised in the summer time, but not to so great degree.

## FARM AND GARDEN.

### MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Yields Thereof—Horticulture, Viticulture and Floriculture.

#### An Agricultural Department for Iowa.

A bill introduced by Senator Harriman to establish a department of agriculture is now pending in the Iowa legislature and there are strong probabilities that it will be passed as it has the backing of a good many members of the assembly and the people and press are generally favorable to it. It is proposed to consolidate under the one organization all the state boards and bureaus related to agriculture. This would give it the supervision of the district and county fair societies, the weather and crop service, the farmers' institutes, and the state veterinary and dairy and food commission departments. It would be managed by a board of which the governor, the president of the Iowa State Agricultural College, the state dairy commissioner and the state veterinarian would be members ex-officio. The regular membership would be made up of directors, one from each congressional district, from which doubtless the officers would be chosen. As there are only eleven congressional districts in Iowa, this would not make a very cumbersome organization and in that respect would be an improvement on the Illinois method of carrying on the same work through four separate organizations. To the first two of these, the live stock commission and the dairy and food commission no particular objection can be made since their membership consists of only necessary working members appointed by the governor. The third organization, the state board of agriculture, is made up of one representative from each congressional district in the state, and the fourth, the Illinois Farmers' Institutes, created by an act of the 39th assembly, and serving in some respects as a model for the Iowa bill, is under the supervision of an ex-officio board of directors consisting of the state superintendent of public instruction, the president of the State Dairyman's Association, the dean of the State College of Agriculture, the president of the state board of agriculture, and the president of the State Horticultural Society. The regular membership like that of the state board of agriculture is made up of a representative from each congressional district and from this membership the officers and standing committees are chosen. As each of these four organizations is a state institution, the expenses of members are paid by the state for attendance at all conventions and committee meetings which each issues and circulates is also paid by the state. This makes a considerable demand upon the public treasury without in many cases any compensating advantages to the taxpayers since the work of the state board of agriculture and of the Farmers' Institutes is necessarily directed and carried on by its officers chosen with special regard to their fitness for the work, their experience and knowledge of the needs of agriculturists.

#### Corn Culture.

Judge S. H. Miller of Mercer, Pa., is one of the enthusiastic farmers of the county. Eleven years ago he bought a poor farm one mile from the town of Mercer, and has made it very productive. Three years ago I saw on this farm as heavy a turf of timothy as seemed possible to any hand. His agricultural faith is pinned to stable manure, underdrainage, heavy sods to make humus, and then tillage. At Leesburg Institute he told us that his cornfield was harrowed nine times last spring before planting, and he said he would have harrowed it nine times more if there had been time for the work. By this he certainly proves his faith in tillage. The crop was one of the best ever raised in the county, according to the testimony of many at the institute who saw the field. Judge Miller cultivates level, and keeps the cultivator going whenever the weather and other crops permit. Continuous culture long as possible would suit him. Tillage conserves moisture and frees fertility. Whether so much tillage would pay in cash most years is a question. I doubt it.—National Stockman.

#### The Grass for the Land.

There is great wealth in the grass crop, whether it be in the pasture or the meadow. More attention should be paid by nearly every farmer to the selection of grasses adapted to his soil, his conditions and his needs. There is a very large number of good grasses, but very few are popularly grown. The ordinary man seems to think that one kind of tame grass in his pasture is about as good as another, and if one of the standard grasses does fairly well he looks for no other. But grasses vary greatly in the growth they make on different soils. With farms varying all the way from light sand to impervious clay it is reasonable to suppose that there are many places where our commonest grasses do not do so well as other grasses that might be brought in.

Of course we recognize the fact that for hay to be sold in the market it will not pay to try any but the best-known grasses, for the reason that the buyer of hay in the city is not inclined to experiment with new kinds of hay, at least not unless he can get the new kind at a very much lower price. But the farmer himself is not thus circumscribed. He can grow and feed without prejudice any new grass.

The work being done by the government in bringing in new grasses from

all parts of the world is destined to be of great value to the farmer, and the latter should not be backward in availing himself of the opportunities presented. A number of grass plots should exist on his farm, and in these should be grown the grasses best reported for his locality. Our practices of grass growing are bound to undergo a radical change; and the future will no more see us sticking to the two or three kinds of grasses now being grown than the present sees us growing the potatoes and cabbages that were favorites with our grandfathers.

Different grasses use different constituents in the soil, and on exhausted grass land it may prove possible to substitute a new variety for an old variety with advantage. Some of the new grasses have been brought from lands subject to great extremes of heat and cold and of drought, and will prove especially serviceable on lands that are so mechanically constructed that they yield readily to drought conditions. Progress in the science of grass growing will come only as a result of many and varied experiments with all the known valuable grasses.

#### Salinity or Vegetable Oyster.

Press Bulletin No. 61 of the Kansas Experiment Station says: Vegetable oyster, or salinity, is a most valuable addition to the list of cultivated vegetables, but at present is little known and scarcely appreciated. It is not a native of America, so far as is known, but is indigenous to the southeastern counties of England, where it grows in the meadows. Nothing from the ordinary sources of information can be found as to its introduction into this country, but it is now well enough known to indicate that it has been long in cultivation. Henderson, in his Gardening for Profit, says that although the consumption is limited, the prices are high and remunerative, and that the amount grown is increasing. Whether or not it should be grown extensively is a question that the demand for the vegetable will settle, but there is no question whatever that it is worthy of cultivation for family use in every vegetable garden.

Botanically it bears the name *Tragopogon porrifolius*, Linn., belonging to the Compositae, and is a biennial plant. The varieties Long White and Sandwich Island have been tested by the horticultural department of the Kansas Experiment Station. There was little difference in the total yield, Sandwich Island being ahead, but the roots of Sandwich Island had fewer laterals and were smoother. Where a good stand the yield was very nearly a pound to the foot of row.

Salinity is easily grown, may be cultivated without trouble, and is easily stored for winter use. The seeds are sometimes planted with a drill, but on account of being so sharply curved at the ends it is rather difficult to obtain an even distribution in this way, unless they are very thoroughly cleaned. They may be planted thickly, to be thinned later on, or the seeds may be dropped from four to six inches apart in the first place. The soil should be rich, but with well-rotted manure worked deep and thoroughly. Upon the perfect condition of the soil depends the straightness and smoothness of the roots, there being a tendency to branch where fresh manure is applied. The plants should be cultivated as parsnips are. They are very hardy, are not affected by frost and may be left in the ground all winter without harm. But to have the roots ready for use they should be dug in the fall and stored away in soil or sand where the temperature is low. If exposed to the air the roots become sarielved and tasteless and are without value.

#### Coloring Butter.

The color question is a matter of vital interest to the dairymen of the United States. Upon that line nearly all the repressive legislation that has been had against the fraud oleomargarine, is based. For that reason, in order that in the future deception and swindling may be prevented, it becomes a matter of necessity that all butter shall come upon the table in a yellow color, says Hoard's Dairyman.

So far as deans having ever ensued from the eating of butter that has been colored, that is the merest humbug. Butter is colored simply as a matter of taste, because in summer, when feed is green, all butter is yellow. It does not make poor butter good butter. The coloring has nothing whatever to do with the question of quality. No man need be persuaded to buy poor butter for good because it is yellow. Quality in butter is not judged by the eye, but by the taste and smell, so color has nothing to do with quality, but has much to do with another department of value, that of appearance to suit the eye of the customer.

The aim of the dairymen and all consumers who do not wish to be swindled into buying oleomargarine when they call for butter, is to force oleomargarine, by the strong arm of the law, to appear in the market and elsewhere in its own distinctive color, which is white, or nearly so. Then, if the poor want it as a cheap substitute for butter, they can buy it for what it is worth. Public sentiment and understanding is fast coming to see the integrity, fairness and wisdom of such a purpose.

The boarding house or restaurant keeper who puts white butter on his table is lacking in good business sense. No deaths, nor even sickness, have ever occurred, to our knowledge, from eating butter colored by any form of color.

The sooner all butter comes on the table in yellow attire and all substitutes are forced to appear uncolored, the quicker will justice be done to the consumer and the dairymen.

A sky full of stars predicts rain.

## THE TEST OF LOVE.

Of all the noble rivers that go bounding to the sea none is more splendid than the Columbia. Its placid banks give a majestic setting for its silver stream. But why should it be called silver? At times it is the deepest green—deeper and more luminous than the heart of a jewel. There are hours when its cascades have a thousand colors, like mother-of-pearl. There are dawns, after the mist has lifted, when the broad surface of the river above the cascades is actually saffron or burnished gold.

Barbara Merriden knew it in every mood, and loved it whether it was somber with storm, or sullen in the harsh autumn days, or scintillant under the July sunshine. She was as much at home upon the river as on the land; and the firm earth, with all its comfort and beauty, could never give her the joy that she felt when the current took her boat in its strong embrace.

She went to the river in her sorrowful moments as well as in her happy ones. She fled to it as a friend. When George Caxton told her that he loved her she ran to the river to tell it of the blessing that had come into her life. But, some way she did not feel the ecstasy she had expected to. The pleasure in her heart did not rise to meet the splendor of water and sky and shore. She had often looked forward to this hour as the crowning joy of her life. But with grief she discovered that the river was not a higher note than the love lyric of her heart.

Perhaps it was because the hour had been too long expected. George Caxton and Barbara Merriden had gone to school together. They knew every event of each other's lives. They had always been attached to each other. George had never thought of any other girl with emotion, and Barbara had longed for that she was destined to be his wife. She had said yes to his earnest question with gratitude and happiness, yet now, in the mystic hour by the river, with the sun shedding its last exquisite glow upon an untried world, she felt a weariness of spirit at the moderation of her joy.

She was transfixed by her beautiful river, humiliated at the inadequacy of her own emotions, when she saw walking among the pines, with eyes fixed upon the distant glory of the sky, a young man whom she had never seen before. He did not see her till she was close by him, and then he looked with a start at the face of the girl, spiritual and exquisite with its deep emotional experience. He stopped and looked at her, rapt, as if she had been some recently embodied soul, created for this wondrous hour, and she stopped, too, enchanted by the eloquence of his face.



When he spoke it was to say something remarkable:

"Is it always mysterious and fearfully beautiful in these woods?" he asked.

"It is always beautiful here," she said, speaking as if in a dream. "And sometimes it seems unreal, and like—like a phantom world—as it does tonight."

Never before had she spoken in the way that she desired. It was her habit to frame her speech in commonplace words.

"I should like to walk out on that golden water," he went on. "It seems as if it might bear one up, does it not?"

Barbara had a fancy, and indulged herself in it.

"It will bear up any one whose heart is light," she smiled. "But, mind you, it must have no care at all. It must be as light as a feather."

"Would it bear you up?" he asked.

She shook her head mournfully, and he said in a voice that moved her: "And I should sink like a stone." It seemed impossible for them to part while that witch light gleamed upon their enchanted wood, and when the shadows grew gray they became a part of them—the shadows they faded from each other's sight.

That night when Barbara went about her duties and afterward when she lay in her bed she found herself happy with the elate and triumphant happiness of which she had dreamed. George Caxton, her promised lover, seemed a part of the work-a-day world. Her thoughts turned away from him in spite of her efforts to be loyal.

She felt sure she would meet the stranger again in the woods, and she did, many times. He was a writer by vocation. He even confessed to being a poet. He was not well, he said. The city had worn on him. So he had come for a long rest there among the pines. His name was Cecil Underwood.

Barbara found it impossible to resist the charm of his personality. He seemed to make the whole world over for her. In vain she struggled to remember the truth and patience and strength of her betrothed. He was too well known to her to be seen through a glamor. With austere serenity he insisted upon an early marriage day. He refused, apparently, to feel any jealousy at the constant companionship of

his sweetheart and Cecil Underwood. And Barbara was angry at him for this, too.

"He has no sensibility," she said to herself.

One wild day when the wind cried through the tree tops and the waters lashed along as if in stress of pain, Cecil Underwood came to her in an imperative mood.

"You must come walking with me," he said. "The day expresses me. I have to speak of the torment of my heart and I will keep still no longer even at your bidding."

Barbara went out with him. They walked under the trees whose roar filled the world with their lamentations. They were silent, conscious of the storm within their souls.

"Let us take a boat," said Barbara, when they had reached the river.

"No, no," he protested, but she seemed not to hear him, and untied her skirt and leaped into it.

"Come," she said, he hesitated, but followed. As the little boat felt the lift of the waves the pain in her heart seemed to lighten, and she let the current carry her along unconscious of the passage of time. Suddenly Cecil cried out:

"The rapids, Barbara! The rapids! See where you have taken us!" She glanced behind her. It was true that the foaming white mane of the water horse was not more than half a mile away and the boat was quivering in the mull of their great power. Barbara smiled a little—it would not matter to her so much, she reflected, if her great problem were to be solved that way. But still, it was cowardly to die. She set her fine young strength to a resistance, rowing up stream, and inclining the boat toward the southern shore. So absorbed was she in this task that she did not notice the man with her till she heard him crying with wild importunities to his Maker:

"Row, Barbara, row! Row, girl!" Then, looking at him, she saw his face was corpse-white and quivering with fear, and the next moment, he sank, an inert heap, at the bottom of the boat.

"Get up," she commanded, "and take the tiller! Get up instantly!" He obeyed dully, shaking and sick with terror.

Barbara bent to her heavy task and made, by means of brave efforts, a little headway. But the wild river horses plunged on and dragged her at their heels. She was almost on the verge of yielding to their relentless strength when a boat shot out from the bank. It came toward her quaking skiff with magnificent momentum. Barbara recognized the occupant at once. It was George Caxton. A hideous humiliation filled her soul. She was almost tempted to yield to that tugging of the wild horses. She looked at the half-fainting, praying creature beside her, and then at the approaching man. And a moment of Gethsemane came to her. Then, white and courageous, she renewed her efforts. A moment later a line was thrown to her. She made it secure. Then she in her boat and George Caxton in his began a struggle against the powers of the river, in which they soon conquered.

George helped the trembling Cecil to shore, but Barbara leaped lightly to land and stood there smiling strangely.

"I am thankful with a great thankfulness that I owe my life to you, George," she said. "It is a privilege."

She held out her hand to the other man.

"Good-by," she whispered.

"Fifty feet. Fifty feet," he cried.

"I do," she responded. "Good-by."

He went slowly under the pines, walking feebly like a man who is old and ill. George looked after him with commiserating eyes, but Barbara was relentless.

"Give me your arm," she said, with tender graciousness. "We will walk home together, George."—Chicago Tribune.

#### Austrian Centenarians.

In search of centenarians in Austria, the Tageblatt of Vienna has discovered nine. In Vienna only one woman, who is named Kulla, is older than 100. The oldest on the list for all Austria is Amelie Binzer, who lives in a village near Bilitz, in Silesia. She is nearly 115, and reads without spectacles. The next is Anna Weigl, aged 102. Michael Pazek of Malaczka was born in 1797. Joseph Besendorfer was born in 1798. He was a forest guard of the emperor's property, and has a pension of 15 a day. He is very fond of dancing with young girls. Hermann Schiller, born in 1799, a landed proprietor in Ungvar, uses spectacles to read and write, has all his teeth, and shaves himself every day. He smokes a great deal, and is fond of a hearty meal. Moses Steiner, the poorest among the discovered centenarians, is blind, and his son of 66 finds it hard to support a large family. Elizabeth Maiback, in Sseg, owns several houses, and has a nice family of great-grandchildren; she was born in 1799. Francesco Berloff, a vineyard laborer, in Trent, Tyrol, was 100 years old a month ago.—London News.

#### Ruskin's Death as a Reminder.

East and West, in the March number, says of John Ruskin: "For the rising generation his death was no event bringing deep personal sorrow, as did the deaths of Tennyson and of Gladstone. To the great majority of younger men and women it came chiefly as a reminder that he had lived so long. And yet few, if any, of the great Victorian writers deserve more praise and honor than he. Loving his fellow-men, loving nature, loving art, Ruskin has been an interpreter and a prophet whose influence can never wholly pass away. It is too soon to assign a final value to Ruskin's work in all its phases, but can we not, to some extent at least, suggest the significance of such a life?"