

DAIRY AND POULTRY.

INTERESTING CHAPTERS FOR OUR RURAL READERS.

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



URING the past few years now and again, references have been made to a variety of ducks called the Indian Runner, and when traveling in Cumberland and North Lancashire I have been surprised to see the large numbers of this variety of waterfowl kept. The same is true to a more limited extent in some parts of Southern Ireland. When in conversation with farmers and farmers' wives, more especially in Cumberland, I learnt that they pin their faith strongly to the Indian Runner, declaring this to be the most profitable duck known. This is due to the fact that the production of eggs is their chief object, table qualities being a secondary consideration. A few particulars with regard to this variety will be of interest.

Up to the present time information with regard to the origin of the Indian Runner has been very scant, and even now we cannot point to any definite particulars respecting them, nor whether they are bred in any foreign country. In a small brochure issued by Mr. J. Donald of Wigton, Cumberland, it is stated that about fifty years ago a drake and three ducks were brought from India to Whitehaven by a sea captain, but as the term India, even today, and to a greater extent fifty years ago, may mean any place east of the Cape of Good Hope, this does not help us as to the definite port of shipment or purchase. I am not without hope that this article may lead some readers in Asia to make inquiries on the subject. Mr. Donald states that the same captain brought over a further consignment a few years later, but that "they were not known to their introducer by any special or distinctive name, having simply attracted his attention when ashore by their active habits and peculiar gait."

The first specimens brought over, and, we believe, the second also, were presented to some friends in West Cumberland, in whose hands they remained absolutely for many years. But, with that desire for sharing in a good thing which is characteristic of the Cumbrians, a large demand rapidly sprang up for stock, and thus they have disseminated themselves through that and the adjoining county. The name given to them is, first, because they are supposed to have come from India, and second, that they have a "running" gait; hence we have reached the combination "Indian Runners."

A breeder of this variety says that he considers Indian Runners the best paying variety of duck to keep, except when reared absolutely and entirely for the table. For that purpose they are undoubtedly small, 3 to 4 lbs. each when fully grown. Whilst they do not readily fatten, they are very nice eating, and the flesh more resembles the flavor of wild duck, but is much softer and more easily eaten. At ten or twelve weeks old the Indian Runner is as tender as a young chicken. The flesh is partly white and the rest of the body much darker, the dividing line being very clear and distinct. As already mentioned, it is as a laying duck that the Indian Runner excels, and is said to average 120 to 130 eggs per annum, without any special feeding, but simply when given hard corn morning and night. When worms are easily found they require very little food other than this. The eggs are of fair size, white in shell, of good flavor, and not nearly so strong as is usually the case with duck eggs. Mr. Gillett informs me that he has ten Runner ducks which have laid 746 eggs from January 1st to May 20th of the present year, which, considering the severe frosts which prevailed during the first three months, is a remarkable result. The highest average was sixty-one eggs from ten ducks in one week. As a rule, if properly grown, these ducks commence laying when about five months old, and if they are hatched in May and June will begin to lay before the severe weather arrives, and continue egg production right throughout the winter. Early-hatched ducks are liable to moult in the autumn, and this means fewer eggs in the colder months. Ducks hatched the first week in March have been known to commence the first week in August, and it is more desirable to bring them out so that they will begin in November. Five ducks can be run with one drake, and the eggs are remarkably fertile. Indian Runners are non-sitters, but, as in most other breeds in which the maternal instinct is suspended, exceptions are found to this rule, but cannot be relied on for sitting purposes. In appearance the Runner is lengthy and slightly built, with close, compact plumage. The fore part of body is elevated, and the head carried high. This type is found to be the best layers. The following is a description of the characteristics of the Indian Runner: Beak: Bright orange in color, with a triangular tip of jet black, but as age advances the orange color becomes spotted with olive green, and finally assumes a dark olive green color, especially in ducks, the drake retaining the orange much longer. Head: Of the drake, above the eye, a very dark brown, with a slight patch below the eye on each side, these markings being neatly rounded off behind. Neck: Pure white down to near the shoulders, which, with the breast, is of a beautiful grayish-brown. Under parts black, and wings pure white. Tail: Brown, with curled feathers white, and for about two inches above the tail the feathers are a very rich dark brown. Legs: Orange color. The duck has similar markings to the drake, except that the colored parts are a sober brown, like a very light Rouen duck. In summer the drake, as is the case with Rouens, assumes a color like that of the duck on back, shoulders and chest, but is not quite so light in color. The head also becomes of a more dowdy

color, without that brilliant luster which characterizes the winter plumage. He also loses the curled feathers in his tail, which are not replaced until after the autumn moult.—Edward Brown, in London Live Stock Journal.

How Butter Becomes Rancid. Butter stored in a warm room or exposed to sunlight may become rancid from malarial bacteria without becoming sour from either bacteria or from direct chemical change, according to V. Kleckl, of Leipzig, Germany. The acidity of butter increases regularly with its age, and by the action of sunlight and heat this goes on more slowly than under the usual conditions. Heat diminishes the activity of the acid microbes, and they may be killed by direct sunlight, hence the degree of rancidity of butter cannot be estimated directly from its acidity. Oxidation plays an inferior part in rendering butter rancid, the sourness being principally due to the action of bacteria, which are chiefly anaerobic, getting their oxygen by chemically decomposing the butter and hence they can live without air or light. Temperatures of freezing and of body heat retard the production of acid. The addition of four per cent of poisonous fluoride of potassium to test tubes of butter entirely prevents the action of acid-forming bacteria, and the butter retains its aroma taste and consistency, but the fluorides cannot be used as preservatives because of their poisonous properties. The bacteria die after they have produced a certain quantity of acids in the butter. Hence, the acid number eventually reaches a maximum beyond which it does not increase. This maximum corresponds to a rancidity of about 13 degrees. No acid is produced in butter by light with the exclusion of air, nor by pure air with the exclusion of light, but bacteria may produce acid in this butter, hence the great importance of antiseptics in keeping butter, as has long been known in practice and followed through the use of common salt, which hinders the action of the bacteria. A freezing temperature and partial darkness have about the same effect in diminishing the production of acid as has salt on butter exposed to light. The proportion of casing in the butter has little effect on the acidity, and indirect sunlight does but little harm. Under ordinary conditions the acidity of butter is chiefly due to bacteria and not to direct oxidation of butter fat. Nevertheless, butter should be kept away from direct sunlight and warm temperatures, though these factors may retard the acidity of the butter, but because they also induce putrefactive changes which bring about rancidity.

Skull in Dairying. In producing a pound of butter there are sixty-six times more room for skill than in the production of one pound of potatoes. Dairying offers a man the best chance for putting his skill into money. The object of the butter-maker is to get the fat out of the milk with as little of the other constituents in the milk as possible. In every 100 pounds of butter there should be about 13 pounds of water, 82 pounds of butter fat, 3 pounds of salt and 2 pounds of the other constituents in the milk. A cow is not a machine, but a living organism, and therefore will not give a different product because she takes different food. The feed does not affect the blood of a cow, from which milk is largely formed. Feed will affect the quality of the milk sometimes by changing the composition of the fat itself. If the quantity of fat in the feed will become part of the fat in milk, and give its peculiar flavor to the milk. These volatile flavors can be expelled by heating milk or cream to 150 degrees. The case with which cream may be separated from the milk sometimes depends upon the kind of food a cow takes. Cows for making butter should be handled under such conditions as will give them perfect repose. Cleanliness should be strictly observed. Impure air of the stable will not injure the milk when fed to cows. When cows have been milking a long period or have been over-heated, or without salt, the milk will become sticky, and prevent a complete separation of the cream. By having some fresh-calving cows' milk to mix with the milk of cows that have been milking a long time, a better quality of butter can be made. Keep the cream sweet and cold, and use suitable fermentation starter, and you will get a quality of butter in January as good as the quality of June butter. If cream is properly tempered, a temperature of from 54 to 58 will be suitable for churning and 45 minutes will be long enough to get butter.—Professor Robertson, Ontario.

Whence the Quality? Quality of milk is unquestionably bred into a cow, and not fed in. My own convictions in regard to these points which you raise are as follows: 1. The percentage of fat in a cow's milk is not materially influenced by the selection of foods, provided she is fed a generous and well-balanced ration. 2. In a large amount of feeding of milk cows which this station has done during the last five years, we have observed that changes in food have produced changes in the amount of milk rather than in its character. Generally speaking, an increase of the total amount of fat produced has been accompanied by corresponding increase in the other solids, as well as in the volume of milk. A milking cow belonging to certain breeds that produce thin milk cannot have Jersey quality fed into her milk any more than one can feed brains into a Digger Indian. That quality must come into an animal of those breeds—if it comes at all—through a process of selection and persistent good feeding, and will be attained only after several generations, perhaps not then.—Maine Expt. Sta.

A Crimson Clover Question.—Mr. F. W. Sargent, of Amesbury, tells the Farmer and Homes of success with crimson clover where others have failed. His success also was purely accidental. He sowed a side hill last fall with crimson clover and herdgrass. The following rains washed it badly, and to all appearances this spring the crimson clover was a failure, but later it began to germinate and come up in good shape at the lower part of the field where it had been more deeply covered by the wash from the hill above, and since then has done very nicely. This experience raises a question in Mr. Sargent's mind, whether or not if crimson clover could be sowed so late in the fall that it would not sprout, it would start early in the spring and become a valuable crop.

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.



OTANICAL name, A r r e n a t h e m, A r r e n a t h e m, erect, two to four feet high, from a mass of perennial, fibrous roots, leafy; leaves broad and flat, six to ten inches long, rough (the sheath is smooth) pointed; panicle narrow, loose, five to ten inches long; spikelets on rather short stalks, two-flowered (the lower one sterile only, the upper perfect), about three-eighths of an inch long; empty glumes very unequal, the lower one smaller and one-nerved, the upper three-nerved, both thin and transparent, without awns; flowering glume seven-nerved, hairy at the base, roughish; the flowering glume of the lower flower has a long, twisted, bent awn proceeding from its back just below the middle; that of the upper flower has only a small bristle-like awn near its apex. Tall oat grass is a native of the Old World, where it is one of the most valued grasses both for hay and for pasturage. It makes a strong root-growth and lasts well in the pastures. It does well in most localities in the southern and eastern parts of the United States. It is an excellent grass for use in mixtures with such species as tall fescue, smooth brome, orchard grass and meadow fescue. It gives an abundant yield of hay. It is deserving of trial on all but the very driest soils. Its hardiness is shown from the fact that it has often escaped from cultivation and still continues to thrive. One air-dried specimen analyzed by the



Tall Oat Grass.

crude protein, 7.11; nitrogen-free extract, 46.58. Total nitrogen, 1.14; albuminoid nitrogen, .95. Beal, in his grasses of North America, South Dakota experiment station gave the following: Water, 6.84; ash, 7.90; ether extract, 2.85; crude fiber, 28.72; says that this grass is known in some parts of the country as False oat-grass, French rye-grass, Evergreen grass. J. B. Lawes, of England, says of it: "The endowments favorable to this grass are its hardiness, its comparative indifference to the character of the soil, its particularly ample root growth, both deep and superficial, its strong, tufted habit, and its early flowering tendency. It yields a considerable quantity of foliage on the culms, which affords a good deal of leafy feed in spring. It produces rapidly after cutting; its taste is bitter, but it is not disliked by cattle. It does not grow abundantly, except upon poor soils, and is, upon the whole, of somewhat questionable value. It is much grown in France."

Among English seedsmen there is a very poor opinion of this grass, and some call it a noxious weed. But on this side of the Atlantic the results of experience are different. Prof. D. L. Phares, of Mississippi says: "It has a wonderful capacity for withstanding the severest heats and droughts of summer and colds of winter. It admits of being cut twice a year, yielding twice as much hay as timothy, and is probably the best winter grass that can be obtained. To make good hay it must be cut the instant it blooms. For green soiling it may be cut four or five times, with favorable seasons. Along the more southerly belt it may be sown in November and onward till the middle of December. It is one of the most certain grasses to have a good catch."

Other American authors speak very highly of it. Prof. Beal sums up his investigation as follows: "The writer has raised this grass on rather light, sandy soil at Lansing, Michigan, for twelve years or more, has seen it in some other localities in the state, and thinks he can tell why there are such conflicting opinions in relation to its value. In England the climate is moist, and the finer succulent grasses thrive well, while tall oat grass does better in a hotter, drier climate. He has had occasion to kill several plants, and has had no more trouble with it

than in killing so much timothy. There are some bulbs on the sort raised in Michigan, but they are not hard to kill. Like orchard grass, it ripens very quickly after blooming, and to make good hay there must be no delay in cutting. As it blossoms rather early, many let it go too long before cutting, when the stems become woody and of poor quality. Again, bad weather often interferes with the cutting just at the right time, and poor hay is the result. A man doesn't want a large quantity of this grass to mow, unless he is prepared to cut it all in a day or two. It makes a fine growth the first season after sowing, and, if sown alone, will cut a good crop of hay. I find that stock eat the grass well, though most likely they would prefer to have some grass not so bitter for a part of the time. The seed is rather bright, weighing fourteen pounds to the bushel in the chaff. About two bushels is the quantity usually sown per acre. Only half of the flowers set seed, as every other one is staminate. The seed is rather large, starts early, and soon makes a vigorous growth. This fits it for alternate husbandry and for dry countries. In sowing the seed care needs to be used to cut the grass just as soon as the top of the panicle is ready. Not a half day should go by or seed will be lost. It is cut high, bound in small bundles, shocked till well cured, when it is drawn to the threshing floor on a wagon supplied with a canvas to save the shelling seeds. It yields from ten to twenty bushels of seed per acre."

Pig Management. A pig is not a gentlemanly animal, says Farming World. The term pig-headed has come to be looked upon as expressing the very lowest form of stupidity and selfishness. Much as we might wish to defend him, we have to admit that there appears to be rolled into one carcass a greater amount of "pure cussedness" than is found in any other domestic animal, the mule excepted. The pig is a cannibal of the most revolting order, often devouring its own young. It is a gormandizer of the first water, scarcely anything coming amiss

Many an impecunious foreigner on our shores, who wishes to visit his native land, and cannot afford even a steerage passage, has worked his way across the ocean as helper on the cattle ships. The only fee required is \$1 for an agent's commission. The applicant signs a written agreement to work his passage to England without compensation or claim for a return ticket. This method of obtaining free transportation is infinitely more agreeable than "stoking it" on a regular ocean liner.

Special Excursion to Boston. The Knights Templar convolve will be held in Boston from Aug. 28th to 30th inclusive. Tickets will be on sale via the Nickel Plate road from Aug. 19th to 25th inclusive. Rates always the lowest; through trains, drawing-room sleeping-cars; unexcelled dining-cars; side trips to Chautauque Lake, Niagara Falls, and Saratoga without additional expense. For additional information call on or address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill.

Yellowstone Park. Covers an area of about 3,500 square miles. It is an irregular volcanic plateau, about 2,000 feet above the sea. Within this area are 10 geysers, more than 1,000 hot springs and pools, besides paint pots, mud caldrons, lakes, canyons, etc. The Northern Pacific Railroad runs sleeping cars to the boundary of the park. Send six cents to Chas. S. Fee, St. Paul, Minn., for a beautiful tourist book that describes this renowned region.

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A Gay Church Social. At a church social at Union Ridge, W. Va., Monday evening, razors and revolvers were energetically used that four men were killed and several others hurt.

FAIR SAILING through life for the person who keeps in health. With a torpid liver and the impure blood that follows it, you are an easy prey to all sorts of ailments. That "used-up" feeling is the first warning that your liver isn't doing its work. That is the time to take Dr. Pierce's Golden Medical Discovery. As an appetizing, restorative tonic, to re-pep the system and build up the needed flesh and strength, there's nothing to equal it. It rouses every organ into healthful action, purifies and enriches the blood, braces up the whole system, and restores health and vigor.

Highest of all in Leavening Power—Latest U.S. Gov't Report. Royal Baking Powder ABSOLUTELY PURE.

DEADLY RIVALRY.

Cats from the Auditorium and Annex Can Not Agree with Each Other. A short time ago a couple from Texas came to the Auditorium hotel annex in Chicago and brought a cat with them. They were called away suddenly and forgot to take the cat along. The clerks and bellboys have grown fond of tabby, and as he came from Texas and was left behind they called him "Lone Star." "Lone Star" has been visiting the Auditorium proper a number of times and has been trying to become acquainted with the cat there, which is known as "Mike." "Mike," however, is a thoroughbred Yankee. He is unwilling to associate with the southerner, and he has been very discourteous to "Lone Star." Whenever the latter enters the doors of the hostelry "Mike" immediately chases him out. If "Lone Star" departs by way of the tunnel "Mike" chases him until he has gone half way through. "Mike" has a decided antipathy to dogs. Whenever a dog comes into the hotel he darts after him, and if the dog does not run fast enough "Mike" will jump on his back and scratch him. Even bulldogs run away from "Mike."

Tobacco's Triumph. Every day we meet men who apparently lost all interest in life, but they cheer up and smoke all the time and wonder why the sunshine is not bright and the sweet bird's song the pleasures of life and leaves irritated nerve centers in return. No tobacco is the easy way out. Guaranteed to cure and make you well and strong, by Druggists everywhere.

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The same fairy stories are common to the Hindoos, Arabians, Greeks, and Teutons.



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