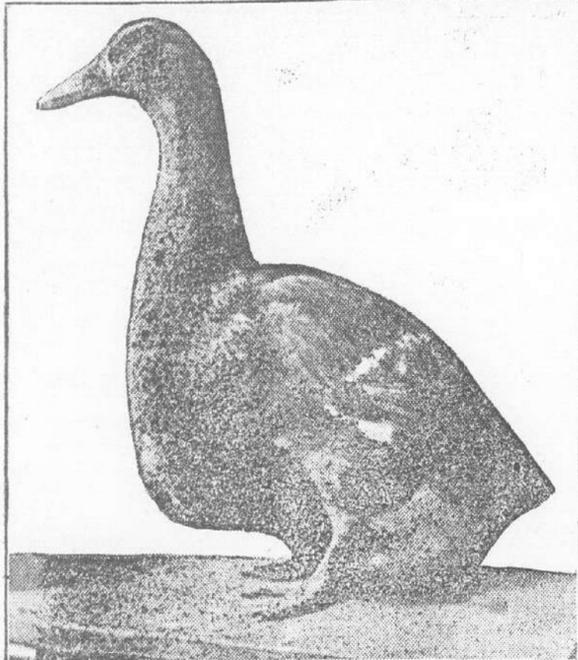


ROUEN DUCK AS GENERAL-PURPOSE FOWL



General Purpose Duck.

(By ANNA GALLIGHER.)
During the past 19 years we have been raising and marketing ducks, keeping several different breeds; but were long ago convinced that the Imperial Pekin is the market duck par excellence.

As a general-purpose duck we like the Rouen; and for eggs alone, the Runner stands at the head of the list. There are two varieties of Pekins—the small, or medium-sized white duck so often seen around farmyards, and the large kind known as the Imperial Pekin; the latter being only a little smaller than the common goose, and having a beautiful cream-colored plumage. This is the variety of Pekins kept by the larger breeders in the East.

A common mistake, especially among farmers, is that ducks and chickens are fed and housed together, the result being a lot of half-starved specimens which have bodies outstripped in growth by beak and feet.

A Pekin duckling will eat, at one meal, as much as three or four chicks of the same age, and gain in weight in proportion; but the food must be of a somewhat different nature from that required by chicks.

For instance, dry feeds, such as wheat, cracked corn, etc., are unsuitable for ducklings, though they make excellent feed for growing chicks. In order to ascertain the difference in growth a pair of Pekin ducklings and a pair of White Wyandotte chickens were weighed when fourteen weeks old.

Ducks and chickens were hatched the same day; both were well fed, but neither was forced. The two chickens weighed four pounds four ounces, while the two ducklings tipped the scales at 14 pounds.

We use both hens and incubators for hatching, those hatched under hens being kept for breeding stock. Our ducklings are kept in large yards, fenced with poultry netting, while small. Twenty-five is the usual number for each yard, and ducklings of different sizes are never yarded together.

Each yard is furnished with a separate house for the ducklings to sleep in at night. These houses are cleaned every day and fresh litter put in for bedding. For the first week we feed light bread (at least two days old), crackers, corn bread, cooked rice and rolled oats.

The bread is crumbled and either fed dry or moistened with sweet milk. We never confine our ducklings to any one kind of feed, because a variety gives much better results.

Green food is essential at all times. For this purpose we grow large quantities of lettuce, onions and dandelions. These are chopped and fed in addition to grain food several times a day, while the ducks are small.

HOW TO KNOW SEX OF GESE

When Fowls Are Six Months Old Gander May Be Told by Observation—His Call is Shriill.

It is not an easy thing to tell the sex of geese.

When they are six or seven months old one usually can tell the goose from the gander by observation.

The male in most cases grows larger than the female.

The female has a deeper body, slimmer neck and smaller head.

The call of the gander is long, loud and shrill, while that of the goose is merely an answer to it.

It is a good plan to divide the flock part on one side of the fence and part on the other when trying to distinguish the sex, when you can distinguish most of the ganders by their calls.

Never look for a curled tail feather or other outside marks, for there are none.

Keep Vermin Away.

Don't let the lice bother your hen that is setting in the old shed yonder. "A stitch in time saves nine!" Very true; and the same thing is true in the poultry business. "Kill the lice in time and it will save an increase of a million."

They relish these "greens," no matter how plentiful grass may be, and when mixed with other food the greens furnish bulk, which is an important point in duck feeding.

A great quantity of food is required, but it must not be too highly concentrated. For this reason wheat bran is a prime factor in the feeding of ducks.

We feed our young ducks all they will eat five times a day, the hours for feeding being 4 a. m., 8 a. m., 12 m., 4 p. m. and 8 p. m.

There is little danger of overtaxing a Pekin duckling's digestion, provided good judgment is used in the selection of food and plenty of grit and sharp sand are provided.

The latter we put in the drinking water. This is important. We have known instances where whole flocks of young ducks were lost because the owners failed to furnish grit.

The food must be fresh and clean. Drinking water is given at each meal and also between meals, in shallow vessels, which must be kept clean. Ducks drink often and soil the water in a short time.

Pekin ducks do not require swimming water, though they enjoy it, and if allowed to roam at will, both young and old are sure to find a pond or stream if there is one within easy distance.

We never allow the young ones to wander off because, early in our experience, we learned that too much paddling in cold water causes cramps, from which they never recover. Even a cold rain often proves fatal.

After the first week we begin to feed raw mixtures. These are composed of equal parts corn meal, bran and middlings or second flour, moistened with water. Or oatmeal bran and cooked vegetables, a little salt being added several times a week.

Sometimes cornmeal, cooked potatoes and chopped "greens" and so on, are fed. Occasionally we feed green corn, cut from the cob.

At the end of the fifth week those intended for market are put upon a more fattening diet.

Instead of moistening the mash with water, as heretofore, skim milk is used and no greens are added. Milk should not be used as a drink for ducks, but when added to ground grains it is far superior to beef scraps or any kind of animal food for producing rapid growth in ducks.

Twice a week some powdered charcoal is added to the mixture. Besides sand, we give the ducks coal cinders with the ashes sifted out. A duck prefers cinders to any other kind of grit.

At ten to fourteen weeks old the ducks are sent to market. There is nothing gained in keeping them longer, because about this time the large feathers begin to appear and the gain in weight will be less rapid.

TROUBLES OF THE INCUBATOR

Many Causes for Lamp Smoking—Good Rule is Not to Turn the Eggs Until the Third Day.

If the incubator lamp smokes, you have turned the wick too high, let the burner catch loose, used a very poor grade of oil, or let dirt gather on the burner gauze, or let something get into the pipes and obstruct them. Mud wasps will do this.

Never turn the flame of the lamp to full height when first lighted, then don't forget to go back in a few minutes and put it to proper place. Fill your lamp in the evening; a full lamp gives better heat than one half full.

Some people do not turn eggs on the day they test them. Don't turn the eggs until the third day after putting in the incubator; at least this is the rule of one successful incubator operator.

Don't place the thermometer under the wafer in the egg chamber. Don't fill the lamp when burning.

Kill the Ailing Hen.

It very seldom pays to doctor or bother much with a sick or ailing hen—if she gets well she will eat all the profit off before she is vigorous enough to lay well again. Her room is of some value.

WOMEN IN ARSENALS

HANDLE EXPLOSIVES WITH SKILL AND FEW ACCIDENTS.

Government Declared to Have Gained a Hundredfold Since Their Employment—Quickly Become Expert. Always Careful.

Much of the important work at the United States government arsenal at Frankfort, Pa., is in the hands of women who are as skilled at making deadly weapons as are their sisters as nurses in army hospitals or on the fields of battle. They are regarded as more trustworthy, proficient and conscientious than men, and are in such demand in many departments that they are worked in two shifts. Even in the fuse room, where the most dangerous work is undertaken, women are employed and accidents are few and far between, due in a large measure, it is declared, to the greater care taken by the female employees.

Most of the work in the hands of the women is regarded as skilled labor, and it is strange to see such cautions as "Mary Mathews, skilled laborer." Every precaution is taken to safeguard the workers and no one is overworked, but the government has gained a hundredfold since the women have entered the arsenal as workers.

Each cartridge inspector in the arsenal inspects 31,500 cartridges a day, an average that has been maintained for several years. This work is very important, for the slightest defect, one not even to be detected by the experienced eye, might mean a premature explosion and the loss of an eye, limb or life to a soldier.

It is interesting to watch the girls, most of them quite young, handling the big machines, some automatic and some hand-fed, in the rooms where the cartridges are tapered and clipped. In this work eight girls are employed and each one handles 33,000 cartridges a day.

The girls employed on the gauger are especially expert, and have been in the arsenal a number of years. One girl gauges the cartridges and two inspect them. The gauger is also an expert inspector, and when the supply gets too large for the girls to handle she assists them.

The cartridge passes from the gauger to a weighing machine, and if the powder shot is the slightest degree underweight the machine throws it out. Every cartridge is weighed a second time. It is interesting to note that not an underweight cartridge has reached the Philadelphia section of the arsenal in five months.

High Explosive Shells.

One of the surprises of the war has been the great relative demand for high explosive shells as compared with the demand for shrapnel. The consumption of both has exceeded all estimates, but it is shell that the new conditions have most strikingly affected. There was a time when it was considered more noisy than dangerous and in field operations more useful to shake the enemy's nerve than to inflict damage; while as to the deadliness of shrapnel against an enemy that it could reach there has never been question. But in the elaborate trenches employed in this war the men are fairly well sheltered from shrapnel, and for the special purpose of preparing the way for an attack high explosive shell in prodigious quantities is required. That the British are still short is indicated by the complaint of the Times' correspondent that the advance attempted near Fremelles was weakened by a forced economy in the use of ammunition. The French seem to be better off, and if the Germans have felt any scarcity on either front they have succeeded in keeping it a secret, which is the next best thing to having plenty.

Most Primitive Race of Men.

The North pole natives alluded to by Captain Amundsen in a recent lecture were discovered by him while he was navigating his little craft, the Gjoa, through the Northwest Passage in 1903-1907. He christened them Nechilli, and considered them to be the most primitive race on earth. No white man had ever before invaded their icy fastnesses. Consequently they were ignorant of the use of iron. Their fishing implements were long spears, fashioned out of reindeer horn. They knew no other method of procuring fire than that of rubbing two pieces of wood together. They were, in short, still in the stage of civilization reached by our ancestors of the stone age. So cut off were they from others of their kind that they imagined their tribe was the only one in the world, and displayed the utmost astonishment when told of populous countries far to the south, where neither ice nor snow was. The Gjoa and her crew they thought to have dropped from the moon, and the first Nechilli to come aboard felt the deck, masts, boats, oars, all the while whispering to one another in amazement: "How much wood there is in the moon—how very much!"

Horse's Skull to Improve Acoustics.

In demolishing the paragonage of the Lutheran church, built eighty-two years ago, the skull of a horse was found embedded in the wall.

In this section there is a superstition that if the skull of a horse is placed under the church it would help the acoustics properties, and the voice of the minister or any one occupying the pulpit could be heard to better advantage.—Ellisabethtown Correspondence Philadelphia Record.

BUCHAREST A LITTLE PARIS

Built as a Capital Only, It is a Gay City, Without Factories—Has Famous Parks and Buildings.

The Roumanians have spared no effort or thought, says the National Geographic society, toward making Bucharest, their capital city, a real capital, and not just one of the larger Balkan towns, cut to the severe design of the modern commercial city that is found throughout the West.

The whole history of the Roumanians since the casting off of the Turkish yoke has been one of conservative progress leavened with enterprise, of thrift lightened by keen appreciation of the embellishments and pleasures of life.

And in Bucharest one finds more artistic, literary, and scientific life than in any other part of the peninsula.

Bucharest is an attractive city of broad boulevards and avenues, as becomes a capital, and has, like Paris, Berlin and Washington, famous drives and parks within its area, and "avenue of parades," and ecological and botanical gardens.

The city is built in a hollow between the hills upon both sides of the Dimbovitza river, which is crossed by 12 ornate bridges.

There are some truly magnificent buildings upon its broad thoroughfares, among the most prominent of which are the royal palace, the university, the National theater, and the Palace of Justice. Bucharest has some squalid sections, with narrow, crooked streets, but these are reminiscences of the Turkish regime, and are fast disappearing.

While Bucharest does a considerable commercial business, it is of no importance industrially.

Bucharest, like our own capital, has been developed primarily as a capital. The Roumanians have chosen Paris and Vienna as their models, and have produced a judicious blending of the two upon the much smaller Balkan scale.

Bucharest has plenty of good music, and its people who gather in the concert halls or enjoy the free military concerts in the evening along some promenade are appreciative and critical listeners.

Furthermore, Bucharest, as also becomes a European capital, is a great educational center. Its schools, academies, colleges, and university are models for Balkan countries.

What War Babies Mean.

"War Babies," says the New Republic, should be legitimized, but for the babies' sake, not because they fill the gaps made by war. "A race cannot be strengthened by mere multiplication. Only the wholesale barbarism of war and capitalism and imperialist expansion would ever have made mere quantity a standard of morals. That is why the sentimental appreciation of war babies is so disheartening. It is not a flare-up of liberalism, not a new sense of the sanctity of life, but a worried and careless attempt to recoup the losses of war.

"Against the proposal to drop the savage punishment of the illegitimate no humane person will say a word. But against the idealization of hap-hazard, unwanted and promiscuous childbirth all decency rebels. It asserts that the way to replenish the race is not to stampede women into child-bearing, but to acquire a fresh sense of the terrible wastage of life in the normal pursuits of peace.

"England or France can make up the losses of this war by dealing with their slums and their factories, their poverty and their disease. They can make permanent additions to their racial strength by a regard for the quality of births and the opportunities of children. But they are baling out the ocean with a sieve if they try merely to make up for wholesale destruction by indiscriminate propagation."

Slip of the Tongue.

The church people planned a surprise party for Mr. Hamilton on his fiftieth anniversary as a member of the Joyville Presbyterian church. The congregation was to call upon Mr. Hamilton and the minister was to present him with a loving cup, or a set of Shakespeare, or something else, no matter what. When that ceremony was over, Mr. Hamilton was to surprise the minister by presenting him in the name of the congregation with a bicycle. A sort of boomerang surprise party, you see. But when Mr. Hamilton had received and acknowledged his loving cup, or whatever it was, and brought forth the bicycle and presented it to the minister, the dominie's jaw fell and he was utterly flabbergasted.

"Well, Mr. Hamilton!" he exclaimed at last. "You certainly do have a way of putting people in a hole!" After that there were no more surprise parties in the Presbyterian circles of Joyville for several years.—Newark News.

Victoria Cross Way.

"I've talked," said a war correspondent, "with a number of Victoria Cross and Iron Cross and Medaille Militaire men.

"These fellows are not usually over-strong. As a rule, in fact, they are little and thin. I asked them how it was then, in hand-to-hand fighting, that they didn't get killed by their bigger opponents.

"Well, their answer to this question was pretty much the same thing in every case. A composite of their answer would be:

"When two men come together in dead earnest with the bayonet one of them always funks, and I never do."—Washington Star.



KEEP FLIES FROM ANIMALS

Tar Often Can Be Used to Advantage in Protecting Sore Places From Irritating Insects.

(By G. H. GLOVER, Colorado Experiment Station.)

There is probably nothing that will keep flies away from live stock to the extent that they will not be more or less irritated by them.

Most of the coal tar products used for "dips" to kill external parasites are useful when used over the body, well diluted, and applied from a spray pump. Oil of tar or pine tar can often be used to advantage in protecting places that have become sore from the irritation of flies.

The following mixture has usually given as much satisfaction as any other: Synthetic oil of sassafras, four ounces; lard or neat's-foot oil, two pints, and crude petroleum enough to make one gallon. This will cost about \$1 a gallon.

This mixture should not be expensive and will not need to be applied as often as the other: Fish oil, 100 parts; oil of tar, 50 parts, and crude carbolic acid, 1 part.

The best way to "swat the fly" is before he is born. Allowing piles of manure to accumulate in the stables and yards for flies to breed in and then applying some kind of "dope" to keep flies away from the animals is inconsistent, to say the least.

MAKE PROFIT WITH FEEDERS

Animal Should Have Beef Characteristics, a Wide, Strong Back, and Large Heart Girth.

(By JOHN L. TORMEY, Wisconsin Experiment Station.)

Steers, if they are to make profitable gains in the feed lot, must have beef characteristics, a wide, strong back and a large heart girth.

They must have a strong frame and plenty of room for the vital organs, for an animal with a weak constitu-



Stocker Steers on Pasture.

tion cannot hold up through the feeding season.

A wide head and muzzle usually indicates good feeding qualities.

Short legs, heavy hind quarters and arched ribs are essential in the feeding animal.

The skin should be reasonably thick, soft and covered by a heavy coat of hair.

The animal should have a straight back and low-set appearance, due to the depth of the body and short legs.

DETERMINING SIZE OF FLOCK

Much of Equipment Necessary for Small Number of Sheep Will Serve for Larger Number.

During the past, the prices of wool and mutton have had a powerful influence upon the size of the farm sheep flocks. There has always been a tendency for most farmers to dispose of their flocks when prices become low and to enter into the business again when the prices become high. Where pure-bred sheep are kept the size of the flocks are, as a general rule, much smaller.

The work of caring for the flock should be considered in determining the size. Certain chores must be done, and many of these would take little more time with 50 than with 15 or 25 head. Much of the equipment needed for a smaller flock will serve for a larger one. A ram will be necessary for a dozen ewes, while as a matter of fact a mature one could be bred to 50 ewes fully as well.

As a general rule, under mixed farming conditions, one sheep to three or five acres is considered advisable. The question should not merely be, "How many sheep can you keep?" but "How many can you keep healthy?" A small healthy flock is much preferable to a larger one that is diseased.

Training Young Horses.

When training young horses, it is important to teach them one thing at a time and teach that thoroughly before beginning something else. Nothing should be more gradual than the development of the power of a draft horse or the speed of a trotter.

GOOD ROADS

WIDE TIRES IMPROVE ROAD

Mechanical Expert of Kansas Gives Farmers Advice Based on Practical Experience.

"Wide-tired wagons pull more than narrow-tired ones 90 per cent of the times when they are used," says F. A. Wirt, instructor in farm mechanics in the Kansas state agricultural college. Professor Wirt has completed experiments with wide-tired wagons.

Narrow tires pull harder than wide tires, says Professor Wirt, because narrow tire cuts deeper into the soil. The wide tire does not cut so deep and makes a better track on the soil which are traveled while the ground is soft. The wide tire packs the face into a firm roadbed.

The experiments show that in the fields, plowed fields, field lanes on pasture and on alfalfa lands, draft of the wide tire is considerably less no matter what the condition of the soil.

In places where the mud is soft and rolls up on the wheels, it is made by narrow wheels, or in a face of mud with a hard ground beneath, the narrow tire will pull more easily. The narrow wheel rut, on the hard bottom of white runs, and it collects less mud than the wide tire.

Width of tire and height of wheel have a great effect upon the draft. The usual width of the narrow tire is one and three-fourths inches, the wide tire is usually three or four inches wide. The tires used in tests were one and three-fourths inch inches wide respectively, four inch wheels are used only on trucks. One type of wheel was found in the low wheel with narrow tire. The draft with this is so great that a team can hardly pull a load in soft field surfaces.

A farmer who can afford only one wagon will find many factors going into his selection. If he has to go on the roads in all kinds of weather, he will find the narrow tire better because they will collect less when the roads are bad. On the other hand, if he goes only when roads are good, or uses the wagon in the fields a great deal, he will find



Well-Kept Country Road.

wide tire will be preferred because of the lighter draft and less damage to the fields.

One of the main points in favor of the wide tires is that their use greatly improves the roadbed, as they pack the top soil making the road firm and thus enabling it to hold well in time of rain. The wide tire will not cut up the meadow or as does the narrow tire. This is also important, as a smooth surface in the meadow is much easier to mow over.

BAD ROADS CAUSE ACCIDENTS

Claims Made on Insurance Companies for Four Deaths From Mishaps Due to Faulty Highways.

Do we need good roads? The answer of a Chicago traveling man's insurance organization covers the pages of ten death claims for the first days of the year, and of these were deaths resulting from motor accidents due to bad roads.

It is singular that these four occurred one each in the four western states of Minnesota, the Dakotas and Montana.

In each case the traveling man's organization paid \$5,000.

This furnishes a striking example of the financial and economic charged up directly to bad roads.

Meeting of Builders.

The American Road Builders' Association and the American Highway Association are to meet together for the first time next September, according to W. Gates announces. The convention will be held either at Oakland or San Francisco.

First Eggs to Hatch.

The freshest eggs are the first to hatch. In buying eggs it is best to bear this in mind, and stipulate that all one shipment shall be of about the same date, say within three days.