

EFFICIENT FARMING

Poultry Culling and Selection.

The earning capacity of either the individual hen or the flock depends primarily upon the intensity or rate of production and the seasonal distribution. In some respects hens are like automobiles: the mileage varies although the gas supplied is taken from the same tank. The motor equipment of hens reveals a striking contrast in speed, cost of operation, and durability. It is quite obvious that a hen laying six eggs a week produces them more economically than the hen whose inherent capacity limits her to three during the same period. Likewise, it does not require any mathematical skill to decide which hen will be more profitable: the hen that registers heavy production during the winter months, when eggs are high, or the hen that responds only during the spring and summer months.

The two terms culling and selection should have ascribed to them somewhat different meanings, according to their general application. Culling of poultry is usually based on physical changes that the hen undergoes as a result of production. The weakness of the commonly advocated systems of culling is that the fowls must be retained from six to eight months before the tests become valuable, and during this period considerable loss may be registered. Selection for egg production contains greater possibilities but requires more skill. Selection involves a close study of type, conformation, and head character.

Now is the ideal time for the final culling of the old laying stock. A combination of tests including the capacity measurements, the pigment and moulting tests, should be used. The capacity test is quite accurate in determining the present production. Reference is here made to the capacity, measured perpendicular from the tip of the keel to the pelvic bones, which are located on each side of the vent. Most of the culling work conducted throughout the country is conducted largely on capacity measurement changes.

The capacity measurement of the egg sack fluctuates with the rate of ovulation. It indicates only the immediate rate of production. A good layer must have a large capacity, but all hens with a large capacity are not good layers. The weakness of straight capacity measurements lies in the fact that all laying hens, whether prolific or not, develop sufficient capacity to pass inspection. In fact, many mediocre hens show more capacity than the heaviest producers.

Allowances must be made according to the size of the hen. Moreover, a heavy-laying hen may be temporarily off production, due to some environmental condition. This would immediately be reflected by a decrease in the capacity measurements, and unless a little judgment was exercised, many good hens would be discarded.

Greater efficiency in estimating egg production can be obtained by supplementing strictly the capacity measurements by the quality of the egg sack. The degree of quality is determined by the flexibility of the egg sack. It should yield readily by pressure directly above the pelvic arches and between the pelvic arches. The egg sack should feel full, mellow, warm, and life-like to the touch. The skin should be fine and elastic, similar to the loose mellow hide common to the best dairy cows.

Recognized dairy breeders acknowledge that the cow with the finest handling qualities of the udder is the most persistent milker, maintaining more uniformity of milk flow. The same rule is true in egg production. Quality of egg sack is correlated with continued production over the greater part of the year and is associated with late moulting.

Normally, capacity of egg sack indicates the rate of yolk elaboration or egg sack determines the persistence of rhythm or the number of months the hen will be productive each year.

Frequently, a method, commonly called the public bone test, is applied in culling. This gives practically the same information that can be secured by measuring between the keel and the pelvic bones. The pelvic arches spread with production, which is merely one other physiological change that occurs with production. When the bones are spread it indicates that the bones are in various stages of development and that the hen in all closed pelvic arches indicate a non-functioning ovary or a bird that is not in a laying condition. Practically all laying hens will show a good spread in this region but all are not laying at the same rate and therefore, all are not equally profitable.

The capacity test should be supplemented with the pigment test because the latter indicates past production. A hen may be temporarily off production due to broodiness, in which case the bones will close, but if white legs are found to be present, and the hen is showing no indication of moulting, she should not be discarded because she will undoubtedly return to early production.

Poultry raisers, as a class, are familiar with this bleaching process, commonly referred to as the pigment test. It has a practical value in culling during the summer, and is essentially a test for the novice. The yellow pigment which is evident in the shanks, and beaks of the Leghorns, Anconas, Rocks, Reds, and Wyandottes, is re-absorbed and used for yolk coloring. After approximately eighty eggs have been produced, the legs will have bleached entirely, showing the pale or white condition common to hens that are recommended to be retained one year longer. The large beefy hens that have not had the

strain of heavy production will in every case show considerable yellow pigment in both the beak and shanks. We are no longer laboring under the delusion of the early moulting hen filling the egg basket during the winter months. Big records are impossible when production is limited to a few months in the year. It is the hen of Marathon type, rather than the

sprinter, that covers the distance of two hundred eggs or better. Egg laying contests are not always decided until the last day of the laying year, October 31.

Ordinarily, the late-moulting hen presents a ragged, bleached appearance towards the end of October. This is due to the brittleness of the feathers which lose their oil and moisture content through intensive production. The hen on millinery display presents a sleek, well-groomed condition, indicative of her past performance as a producer—the social parasite of poultrydom.

Late moulting and quick moulting are the policies of the heavy layers. Early and prolonged moulting is the policy of the slacker element.

The writer places special emphasis on the head in selecting for egg production. A definite correlation between each section of an animal always exists in a well-balanced individual. The head indicates more accurately the delicacy and efficiency of the internal mechanism than any other section in the production of eggs.

All hens can be roughly classified into one of the four following groups: First, the crow-head type, which is an indication of low vigor; the long, straight, narrow beak, sunken eye, narrow skull, is characteristic of a constitutionally poor producer. This type not only makes unsatisfactory layers, but produces chicks that are slow to feather and slow to mature.

The second general class include the refined type of heads. The refined head should reveal femininity and alert responsive disposition and a characteristic temperament of the genuine egg machine. The head is of medium length, avoiding the short, thick conformation of the more beefy type, or the long conformation of the crow-head type. The skull is moderately narrow, likewise the jaw is not heavy or thick. The skin lining the face should be extremely thin and delicate, giving the face a dished appearance. The eye should be prominent, bulging, and placed well back in an oval eye socket. This gives the placid, feminine and intelligent appearance to the face. There should be an absence of all tendencies to throatiness and heavy thick neck.

The third general type of head is common to the beefy class. The head in this case, is short, heavy, and coarse, with a wide skull and coarse wrinkled skin. In addition the jaw is usually wide, and the neck short and heavy. The fourth general class includes all hens showing secondary male sexual characteristics. This class includes all hens developing either the male voice, common to hens described as Incomplete Hermaphroditism, or the other group, that take on masculine characteristics due to atrophy of the ovary. In either case, the head becomes gross and masculine and the egg sack never shows any development.

Practically all hens can be directly classed in one of the above mentioned groups. Many hens fall intermediate between these four distinct groups and which make it possible to detect their weakness, either as a layer or breeder.

The head is the mirror of production, and reveals not only the motor capacity, but also the efficiency of production.

For Home and Country

Community Recreation—By Dr. Annie Ross

Sound recreation is a moot question in many homes, and the views of Dr. Ross, Director of Physical Education and Recreation at Macdonald Institute and Lecturer to the Women's Institutes of Ontario, will therefore be of great interest.

To each of us recreation has, possibly, a different meaning. To one, recreation means a game of golf, to another it may mean a theatre or a quiet hour in the home, hence the subject is a broad one. But there is one thing of importance, and that is the danger of allowing our recreation to be commercialized by people who are giving us recreation just for the sake of the money they make out of it.

You may find eighteen people playing a game of baseball and probably 1,800 or 18,000 paying to watch them play. That is a form of amusement, but not the best kind of recreation.

The Greeks had a splendid word in their system of education, the word "proportion." We must introduce into our system of education, into our work and into our recreation, more proportion—more play for the people who work too hard, but for the people who are spending their time seeking pleasure—more work.

If you want to find people who are bored to death, do not go to the people who are working all the time, but to the people who are spending their lives seeking pleasure, for we must have things in proportion to enjoy them.

You are building your community halls for recreation but you cannot give people recreation that they do not want. You must understand people (find out what they want to play and say "let's play that"). I am going to outline some of the principles that underlie our recreation.

Some people say recreation is good for the health; so it is, but it is more than that. Again they tell us it is a preparation for life. That is true. They tell us it is some of our mental stimulants, and that is true, but it is more than that. Recreation or play is an art in itself, just as music is an art. It is an instinct. I am going to talk of three or four instincts of the child in connection with recreation, for our play should be an expression of ourselves. Have you noticed the boy or girl when he goes to his first children's party, and the form of recreation he takes there? He gets a toy and holds it until he sees his next-door neighbor has another toy, and he immediately goes after that, and gets that one also.

His idea of recreation is to get everything for himself and not share it. The individualistic instinct is strong at this age and the idea of play is to see everything for himself, to hear, to handle, to taste. Try to get him to play with other little members of the party, you are not successful. Trace that instinct of self-preservation in life, and you see that some of us grown-ups take our recreation in the same way. There are people whose idea of enjoyment is to see all they can see, to hear all they can hear, to taste everything. Their recreation is that of preception; in them the individualistic instinct is strong. This form of culture we spell with a "K."

Watch the child of two or three years hence, and the instinct that is strong in him is imitation. His games are playing house—imitating mother and father; playing school—imitating the teacher; playing horse, playing church, and all through his play you will trace now the instinct to imitate.

We make use of this educationally by having him play occupational games, e.g., "Carpenter," "Cobbler," etc. This wonderful instinct to imitate is expressed by the grown-up, e.g., in following fashions and customs, in the love of drama, etc.

A few years later you will find in the child not only the instinct to imitate but the instinct to compete. Listen to the boys talk as they come out of school: "I can run faster than he can" or "I can spell better than he can" or "I can beat him." Watch them wrestling and racing. Their games are full of rivalry; they love to set traps for animals—not for the value of the animal, but to rival his cunning. They love to catch fish—not for food value, but just to catch them and get ahead of them. That is the competitive instinct. You hear them boasting of how they can "down" anyone, and the good teacher makes use of the competitive instinct in her classes, and gives them scope for competitions.

Then, later still, they develop the social instinct, and you find the boys then are working in teams; they like to talk of "us fellows," and they love to get together in gangs and clubs and have pass-words that others know not. They will not "snitch" on the fellows of their club; they will deny themselves and sacrifice themselves for the club or the team. This is the social instinct, and the games are social games and group games are games where they have to deny themselves for the sake of the group, games that are a wonderful preparation for life.

As an example of such a game, take baseball, for it is better known throughout our country than any other game. What can you get out of a game of baseball as a matter of training? For those who are just learning the game, it is hard for them to keep their eye on the ball. Yet it is a good thing to learn through life to "keep one's eye on the ball." There is always some one thing of vital importance; many people are off on things, forgetting to keep their eye on the ball. The next thing to learn is that the hand and the eye and the brain should co-operate to get quickness of response. It is this quickness of response the engineer must have when he sees an obstacle on the road; he must not stop to think what to do, he must do the right thing at once. The same quickness of response a person requires when driving a motor car—that co-operation of eye and hand and brain. Some young ladies when learning to play ball—when they get the ball—wait until someone tells them what to do with it. The trained player uses her brain to think what to do with it when her chance comes. This implies co-operation. Baseball teaches more than that, it teaches how to take defeat gracefully. They say that women cannot do that; that they know how to win but they cannot take defeat. Perhaps they did not play games as much when they were girls as the men did when they were boys. Women do not disagree more often than men; they take slights more to heart; they take themselves a little too seriously. The man in public life knows when he gets a slight to-day, he will get another to-morrow, and he has no time to sit and feel sorry for himself for the one he got to-day.

One of the nicest things in the game is to see the defeated side congratulate the other side: "You won this time, perhaps we will win next time; we fought hard, so did you, you were better than we." Let us take our defeats graciously in the game of life.

There is something more in a game. One has to learn to take orders from one's captain, and that is a lesson very difficult for some people. Decide who shall be the captain, listen to his voice above all the din and rush of the game. There is one voice to hear,—it may be an inner enthusiasm, or an outward devotion, but following it we are not drifting along with every chance current.

Then there is play the game fair, for every game has rules, and the game of life too should be played fair according to rules. In every game the rules inhibit. We need rules in all our activities. When we train, there is the force that accelerates and the force that inhibits. When we train for discipline, in the old days, we were training to inhibit—putting on the brakes. We need the brakes going down hill but we need the accelerator going uphill. It is the same in life; there are always those two forces. There is not a heart beat that is not governed by two nerves—one nerve saying "beat faster," and the other "beat slower," hence we get proportion, because one regulates the other.

One who has studied life says, "We need inhibiting in our revolt against authority," and "Play is too much relaxation, too much acceleration"—not that a game with rules mean one must inhibit; there is just as much self-control in a game as there is work.

Richard Cabot says, "We are well organized for work; we are stupid in our affections, and we do not know how to play."

You ask for dramas for the girls in your community during the winter? That is very difficult to answer for one who does not know your girls or your community. What one would appreciate another would not, but we have at the Ontario Agricultural College, Guelph, a list of plays with a short description of each. If you send to the College Library they will be pleased to send the list.

August Live Stock Trade.

The comments of the Dominion Live Stock branch on the state of the live stock market and the operations carried on during the month of August clearly indicate that at the end of the month the outlook was promising, prices generally being rather better than in August last year. The excellent feed situation in Ontario is reported as creating a strong demand for store cattle and that outlet as sustaining prices of unfinished stock. Movements of store cattle from the Toronto market to the country were the heaviest for the year to date, being 7,567 compared with 2,900 in the same month last year. Six car loads of ewes were shipped from the same market under the Free Freight Policy of the Dominion Live Stock branch, and many orders remained unfilled. A special note in the Montreal report is that the advantage of castrating and docking lambs was forcibly illustrated by a load of lambs so treated from Trois Pistoles, Que., bringing a premium of fifty cents per hundred over other lambs that were sold the same day.

The Winnipeg report states that at Saskatchewan and Alberta were a number of four and five year old steers lacking finish, which were not only a drag on the market but were practically unsaleable. At the same market the hog supplies ran short and prices bounded upward, being two dollars at the close above the lowest point reached during the month.

Lambs and sheep also showed an upward tendency in Winnipeg at the month's close. Edmonton reports farmers rushing their cattle to market in fear of a shortage of feed, but heavy rains had so improved the pasture that cattle from the Peace River district that arrived towards the end of August showed good quality and good fleshing. Some big buying from the United States sustained the Edmonton market. No buyer took 5,000 head of cattle, principally stockers and feeders, and a load of "butchers" was shipped to Chicago. At Calgary the market was generally active, many cattle being purchased for transport to the United States, one firm alone taking 2,043 head of stockers.

Key Days in Farming.

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Just as there are a few instances in each person's life that have a far-reaching influence over his whole life, so do we find in each year of a farmer's work a few days' labor that count a hundred-fold more for success than does the ordinary daily routine. Usually these days do not come by accident. They are key days in the year's work. The careful farmer plans to see that no other duties disturb when it is time to perform these all-important tasks.

For instance, there is the time you spend selecting seed potatoes for next year's crop. Days spent at this type of work are key days to the farmer. If he hopes to accomplish more next year than he did this year or last year, then he should count the hours used in the selection of good seed potatoes, or good seed corn, as all important.

By working hard, two men possibly can dig and select a sufficient quantity of potatoes to plant five acres of ground next year. According to tests and observations, it has been found that the average crop from high-class seed shows an increase of from twenty to ninety bushels per acre when compared with a crop grown from ordinary seed. Men who follow close culling of seed year after year are producing, according to our experts, double the yields of potatoes that the common grower secures.

If this be true, and we have no reason for questioning the conclusions of these men, then two or three days' work in the potato field before the regular crop is dug may mean nearly as much in next year's crop as the entire labor for 1923 will accomplish. Don't overlook the key days, whether you are growing potatoes, or corn, or cucumbers. They are the days that unlock to you the extra yields and add to the profit side of the ledger.



Bedtime Stories

Riches. Every one of us, As rich as rich can be? In field and garden, wood and lane, So much of wealth we see. There's pennyroyal full of "accents," And mint and goldthread vine, And shepherd's-purse and goldenrod, And silver-leaf ashine, And marigold and moneywort, And richweed all in stock, And many old and mossy banks Without a sign of lock. Why aren't we, every one of us, As rich as rich can be? In field and garden, wood and lane, So much of wealth we see. —Blanche Elizabeth Wade.

Man has an advantage over animals in that he can act well-bred even though he is not. Guessing and gambling go together. Take the guess-work out of farming and it will be less of a gamble.

Something to Fight For

A man who fights for the sake of fighting is no hero. He should be censured and not worshipped. It is only through the merest accident that his fighting can bring him any good.

The man who fights best is the man who has some worth-while object to fight for. He has taken a survey of the situation and has convinced himself that the only way whereby he can accomplish this worth-while thing is to fight. He then loses himself in the struggle. Of all persons, such a one is the happiest. He is no flourisher and while he may not live the spectacular life that some self-seeking persons are anxious to live, his is usually the most successful.

When I observe a farmer who has purposed in his heart to produce a better cow, or potato, or ear of corn, I say to myself, "Here is the man who has started well." It does not necessarily follow that he will attain his ideal, but nevertheless he will find much happiness in his efforts toward finding the ideal. In other words, he is in a state of mind to live an unselfish life, to fit into the mechanism of all sound co-operative enterprises, to become a community builder, and to live a life that others will desire to emulate.

Sale of Root Vegetables.

A measure that should attract the special attention of every market gardener and farmer which was passed at the last session of the Dominion Parliament is entitled "The Root Vegetables Act, 1922". Its object is to regulate the sale and inspection of root vegetables. That knowledge of its provisions may be general, the Act itself, and orders and regulations thereunder, have been published in booklet form by the Fruit Branch of the Dominion Department of Agriculture, by which the measure will be administered. A main provision is that all potatoes, onions, artichokes, beets, carrots, parsnips, and turnips must be sold by weight except when sold with the top leaves attached, or when potatoes are purchased, or tendered for sale by the closed barrel. According to the Act, potatoes are graded into Canada-A, Canada-B, and Canada-C, "A" being absolutely sound potatoes, the round varieties being not less than one and seven-eighths inches in diameter and the long varieties one and three-fourth inches; "B" reasonably mature potatoes, free from dirt, damage or disease and not less than an inch and a half in diameter, and "C," ungraded quality, practically free from damage and not less than one and a half inches in diameter. Onions are graded into Fancy Quality, Choice Quality, Standard Quality, and Boilers. Special provisions are made to allow for variations incident to commercial grading and handling. Requirements are also given in the Act for marking and packing; the powers of inspectors are defined and the penalties incurred by violations set forth. The provisions of the Act do not apply to new potatoes shipped between June 1 and September 30, to seed potatoes, to green onions, or to potatoes and onions for export when compliance with the provisions would prevent the sale or export thereof to any foreign market. The regulations provide for the strength, dimensions, and marking of potato barrels, which as near as possible must contain seven thousand and fifty-six cubic inches.

To Fight Corn Borer.

Canadian entomologists are importing certain species of ants and wasps from Austria to keep the European corn borer in control. In its native land, the corn borer does little damage, because it has two hundred different species of natural enemies to contend with, while in Canada it has only nine enemies to combat. The wasps and ants which prey upon the corn borer in Austria are not common in this country, but the entomologists hope that by nursing them through the winter they will survive in sufficient numbers here to have considerable effect on the borer.

Time is money when spent in proper seed selection. Don't put off until next spring what you can do this fall. Supplies of seed for next spring's planting should be secured now. You are putting your crops away for the winter. Are you doing as much for your farm machinery? Says Sam: I hope by the time I die I know as much as I thought I did when I put on long pants.

A thousand pounds of hens need 8,278 cubic feet of air a day, while a thousand pounds of horses use only 8,401 cubic feet of air a day. Hens have to breathe at a furious pace to keep up their high body temperature. Give them air.

"The souls of little children are marvelously delicate and tender things, and keep forever the shadow that first falls on them, and that is the mother's or at best, woman's. The first six years of life make us; all that is added is veneer."—Olive Schreiner.

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