

Soils and Crops

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Hot Weather Hints for Poultrymen.

Much has been said as to winter practices in the poultry yards, but in too many cases, particularly in farm flocks, as soon as summer comes, the hens are allowed to look out for themselves. This is possibly due to the excellent production received during an early summer which comes without extra exertion on the part of the farmer. We find that at this time of year any hen will lay, but the spirit of hard work is short-lived with the culls, and they again fall off in June and July.

At this time of the year the culls are most easily identified. With a little training and study these unprofitable individuals can be taken out even earlier. Those hens showing lack of vitality, small round bodies, or the big beefy type, will not stand up long in the summer. The yellow pigment returns to the beak and shanks. They go into an early moult and are all through for another year. Get acquainted with the slacker-hen and learn to cull these out. This will materially decrease your cost of feeding and also get the benefit of a better market. Space will not permit a long discussion on culling. Attend a culling demonstration this summer and learn how.

The condition of the poultry house in summer should be given every attention. A hot, stuffy house is not conducive to health and high production. Make some arrangement for summer ventilation. This can easily be done by putting ventilators at the top of house to carry the hot air off. Bring fresh air in from opened windows, thus creating a constant circulation of air. In houses having shed roofs, fresh air inlets can be placed along the back. This can be done by hinging the cornice board so that it can be dropped, allowing air to enter between the rafters. This draft is prevented from striking the birds by lining up inside the house for a short distance over the roofs and down to the dropping board. This allows air circulation over the birds and keeps the house fresh and sweet.

Houses which have high roofs can use straw lofts to good advantage. These can be made by placing some loose boards over the joists and covering with a foot or fifteen inches of straw. This acts as an insulator, prevents the sun's rays beating down on the roof, heating up the house. This straw can be used to equally good advantage in winter as it aids in absorbing the moisture from the house.

If windows are used under the dropping boards these should be opened up, giving the house every chance to stay cool, particularly at night.

Shade should be applied for the laying stock during the day. If trees are scarce, a patch of sunflowers can be sown and fenced off until they get up to good size. Corn sown in rows makes excellent shade.

While it is true that the birds do not use the house a great deal during the summer it should never be neglected. Keep the dropping boards cleaned and watch for mites and lice. The nests and roost should be frequently treated. Crude oil applied frequently to the perches and nests will eradicate these blood-sucking mites. Lice if well established, will reduce the production and cause an early moult. If the flock is lousy treat at once with sodium fluoride. This is the best and most easily applied lice treatment and will assure a clean flock for six months at least.

It is good practice during the summer months to reduce the grain and make the birds eat more mash. They do not require a feed rich in carbohydrates to keep up body heat at this time, but do need the stimulating constituents of mash. Sour milk or buttermilk, if available, should be given at all times and the mash kept up to ten or twelve per cent. If no milk is available keep the scrap up to twenty per cent. A good mash can be mixed of equal parts of ground oats, ground corn, bran, middlings and meat scrap.

Green feed is often neglected. During the hot weather the birds do not range far and the runs are very much devoid of green feed. Sow some rape, Chinese cabbage or sprout some oats for summer. The addition of a little green feed will aid in retarding the moult and help hold up production.

Be sure that all males are removed from the laying flock at this season.

Cherry Leaf Spot.

Clean cultivation of cherry orchards is the best means of preventing leaf-spot, next to spraying cherries. Where the orchard is free from weeds, the affected leaves from the previous year are disposed of. Cultivation buries them and destroys the fungus, by exposing it to the elements. Where the leaves are allowed to remain in the ground, they carry the infection from year to year and when the conditions are right shoot the spores into the air, which, lighting on an unsprayed cherry leaf, germinate and produce leaf spot. Hence a very important factor of cherry growing is to dispose of the affected leaves, and keep the orchard clean.

Where the infection is bad this year it will probably pay to plow the infected leaves under at once, and sow

If they are required for breeding another year, put them in a coop and give them a pen away from the hens. If you do not need them, put them on the market just as soon as the breeding season is over. By keeping the males out the eggs will be infertile and the germ will not develop. This is the cause of such heavy losses in commercial eggs at this time of the year. These fertile eggs will, held at a temperature of seventy or eighty degrees for a few hours, start to produce germs. The heat is insufficient to continue the development and the germ dies and decays, causing rotten eggs.

This is a good time to look up markets for infertile eggs, as good eggs are hard to get on the average market at this time of the year. Get in touch with someone who will pay a premium for guaranteed eggs and then produce a quality product. If you continue to sell on the local market in competition with eggs produced carelessly, you will continue to lose money. You cannot afford to produce a good product and be penalized for the other man's carelessness and you cannot afford to play the role of the careless producer.

Have you cleaned and put away all the brooding equipment ready for next spring? Stoves and metalware will last years longer if carefully cleaned up, oiled and put away in a dry place when the brooding season is over.

The main object with the young stock should be to bring them along with no setbacks and have them in the pink of condition when fall comes. The early hatched cockerels should be ready for the market before now. Segregate the best as soon as the sex can be detected, put them on a separate range away from the pullets. They will do better and the pullets are much better alone, particularly in the lighter breeds.

The cockerels will make better gains when fed alone and supplied with a moist mash in addition to the dry mash in hoppers. A good mash for the cockerels can be made up of ground corn, thirty pounds; ground oats, twenty pounds; bran, twenty pounds; middlings, twenty pounds.

This can be fed dry, and also two feeds a day moistened with milk, preferably sour or buttermilk. Keep milk before them at all times. If milk is not available, ten per cent. meat scrap can be added to give the necessary protein.

Every care should be given to pullets from now until fall. See that the roosting quarters are well ventilated, kept clean and free from mites. Supply shade. An ideal place to raise pullets is in the orchard. The corn field, if not too far away, is an excellent spot. It supplies shade and abundance of insect life. Corn or sunflowers can be sown for shade if it is not convenient to move the colony houses to the corn field.

Hopper-feeding both the mash and grain feed is a great labor-saver, and gives excellent results. Outdoor hoppers can be constructed which will shed the rain and hold enough to last for several days.

If milk is available keep it before the birds all the time, if not, be sure they always have a supply of fresh, clean water, and ten per cent. scrap can be added to the mash. A very good developing mash can be made from bran, twenty-five parts; middlings, twenty parts; ground oats, twenty parts. Corn, fifty parts; wheat, fifty parts, makes an excellent scratch feed which also can be fed in hopper. As the pullets begin to develop, twenty per cent. corn can be added to the mash to insure good fleshing before they commence laying. This will aid in preventing a fall moult in early pullets.

Special attention must be paid to the breed flocks. Pullets not receiving plenty of greens will not yolk up or develop as strong constitutions as when given abundance. Oats are easily sprouted in summer and a patch of rape can be sown to provide this element. A patch of alfalfa is excellent and the birds will do well on a range of this kind. The old tough sod does not yield feed of any value during the hot, dry weeks of summer.

Keep a line on the most promising pullets and enter a pen in an egg-laying contest. The sale of breeding stock will be greatly increased by an official record at an egg-laying contest and will help to sell the eggs for hatching.

To cover a crop, and then disc the cover crop under early next spring and keep your cherry orchard free from weeds next year. Another very important factor in the control of the cherry leaf spot is to spray immediately after using either lime-sulphur 1-40 or Bordeaux mixture 4-4-50 with one pound of arsenate of lead to every fifty gallons of mixture. The lead with the fungicide will control the slugs which work on the cherries.

To sum up, clean cultivation with proper spraying is essential for the control of leaf spot on cherries.

Build that silo early. Ten cows in milk would be about the logical number to keep up the fertility on a 100-acre farm where commercial fertilizers are used, and where there are three dry cows, some young stock, and some horses.

In a Phonograph Recording Laboratory With An Artist

Not many music lovers bother their heads about the details in connection with the making of a phonograph record by an artist. They have, perhaps, a faint conception of a singer, orchestra or band standing before a horn performing—but when it comes down to knowing that in the case of an orchestra some instruments are played by performers of very high stools while others almost squat on the floor, or that a recording laboratory consists of two rooms, one where the artist or artists stand and the other (the holy of holies) where the recording machine is set up, they are not infrequently at sea. For the benefit of such persons, the following gives a fairly comprehensive grasp of the situation as outlined by an artist herself.

"I have," she says, "accepted an engagement to sing on the afternoon of the 14th. I arrive at the recording rooms fairly punctual as usual. The singer before me is still recording. Her last effort is being heard critically by the orchestra leader and recording master. The orchestra men are sitting round in their shirt sleeves in the anteroom, smoking hard. Through the clouds of cigarette smoke are dimly seen the 'Positively No Smoking' signs. They know that a sensitive throat is often affected by heavy cigar smoke, and so rarely indulge in that luxury.

"From the room beyond—the recording room—I hear a Jewish wail, marvelously reproduced in the machine. 'Elli Elli!' The girl's chest voice is carried up to middle C in defiance of vocal methods, but it suits perfectly the anguished lament. With a last nasal cry of desolation the voice stops.

"'Good!' I think. 'My turn now.'"

All Set for the Horn.

"Not at all. Apparently they are not satisfied. The orchestra is called back, and I hear the girl herself repeating phrases I have just heard from the machine. After three or four repetitions she comes out—typical Russian Jewess, pale, with something mystic in her eyes belied by her smart clothes and generally ready-made air.

"All right, Miss Howard! That is it. 'I have grown a bit keyed up by waiting—always to me one of the most trying incidents of life—and go gladly to the slaughter.'"

"Mi, mi, I hum a bit. Yes, the voice is still up—that is, resonant and as I left it after my careful morning practice.

"I enter the warm room. It must be kept warm because of the wax used for recording, and of course the windows are closed. Some companies record in a big, resonant, empty room; some in one planned to dull all extra sound vibrations. As for myself, I welcome the big vibrating emptiness. It helps your record, helps you on big notes when you sway back from the horn and all the air waves pulsate with your voice.

"The orchestra is grouped round you. It is small, of course, and varies in size, from twelve to twenty men, say. There are some strings, a saxophone, possibly, trombones, horns, cornets, oboe, different woodwinds, and a flute. Sometimes the violin has a queer metal horn attached to its side. This focuses a brilliant tone on the recording horn and allows the violinist to stand farther back.

"All the men are on different levels. Some stand on blocks and little platforms, some sit on stools of different heights and built-up chairs. All are movable, and can be adjusted and re-adjusted with ease. Their music is suspended from a network of cords and wires near the ceiling—a little sheet in front of each man's eyes. The men climb up, shuffling their feet and shoving their wooden stands about. The trombones are pushed back, the strings forward.

"The flute is to play an obligato close to my ear, and is extremely afraid that I will not let him come within recording distance of the horn for his solo work.

"I reassure him and win a smile. We all must record into that one horn somehow or other, and it is a finely-balanced affair, requiring much nice adjusting to enable us to do so.

The Orchestra Rehearses.

"The orchestra leader taps his baton after the music is distributed, and they begin to rehearse. They try it through once. A mistake or two in the notes—groans and whistles of disgust. It is corrected. They try again. The maestro stands way above you, facing you, his eyes on the orchestra and you. He is behind and a little to one side of the horn.

"All ready!"

"A fresh wax is put in place, everything looked at carefully—yes, all is ready. A moment of absolute silence, only the whirr-r-r of the machine is heard. The needle is put on the wax, lifted from it, put carefully back again. Then if the cut is just right—that is, the cutting spiral of a wax hair begins leaving the surface where the needle travels delicately over it—the assistant recorder holds up his hand, whirr-r-r goes the machine, and we are off. The attack is perhaps a bit ragged at first.

"I stand close to a suspended zinc horn coming from the machine, shaped like a funnel. I must stand with one foot in front of the other, ready to sway back or forward at will. The orchestra is thickly clustered behind

me, and if I sway too much to the right or left, or too far backward, I bump a violin bow or a bit of music sweeps my hair.

"The flute has the air in the introduction, so I yield him my place close to the horn, and either duck down out of his way or step noiselessly to one side. The orchestra does not follow me exactly, and I resolve to ask a moment's leniency on 'sous un ciel toujours bleu' to bring out the 's's' and the 't' in 'tours'.

"The orchestra seems to be playing too loud, covering my words no matter how carefully I pronounce. I try to sign this to the leader with my eyes and hands, without moving my position in the least in front of the horn. 'He doesn't understand. He thinks I mean to go slower, so I nod the tempo slightly. This is only the first time of trying it, and ten to one it will not be satisfactory, so the strain is not so great as when you know you are making a master, or matrix, from which the record will be cast, and you feel you may allow yourself liberties in indicating tempo, and so on."

The Wrong Time for Comments.

"We go on to the end. A silence, while the machine whirr-r-rs a band of fine lines as a salvage to your ribbon of song. Sometimes a singer will forget this pause and remark loudly, 'That was pretty good, don't you think?' which, of course, instantly recorded on the faithful wax, spoiling an otherwise good record.

"At the close of a test the machine is stopped and the director climbs down from his box to hear the record. 'He says perhaps to the trombone, 'Those notes um-ha-um-ha must be more sustained', or, 'What did you play correct, in the fifth bar from the end?' and so forth.

"Silence, please! from the recorder. He moves the swinging zinc funnel and puts another smaller one in its place. With great care the test is run over and you listen with painful attention, standing close to the horn. You note mentally that that tone was too bright with its flat a-a, it cut too deep in the wax for the soft sounds before and after it. That high note came very near being a blast—I was too close."

Re-arranges the Orchestra.

"A slight shifting of the orchestra's several positions takes place, for the keen, practiced ear of the master re-voice was too dull in one place, the brass too heavy in another. The maestro gives his opinion, and the men who have left the room—showing small interest in the first test—are called back. With much talk and banter they climb back and blow a few swirls and quorks on their instruments; the violinist jizzes the melody you have just been singing, and a general smile relieves everybody. We begin again.

Ah, say—from the flute when he has finished his introduction—I did something funny. His top note has been a bit husky, just like a prima donna with a frog in her throat. The cut is stopped. There is still room on the wax for a twelve-inch record, so we start again. We swim out. Conais to be pays."

A Flaw in the Wax.

"We get about a third through. The man at the machine holds up his hand. A hole in the wax—no good. 'A hole' sounds tremendous; in reality it is a minute flaw, not to be seen by the naked eye, but the needle has discovered it. Tiny as it is, it will affect the perfection of the record. A fresh wax is put on.

"The musicians swirl and toot again absent-mindedly. I do a few mi-m's, or perhaps, feeling the fatal 'master' approaching, I slip a moistening lozenge under my tongue. I have not been nervous so far in any degree. Habit and knowledge that in all probability it will have to be repeated several times have detracted from the sense of responsibility. Now I girl up my loins—this is probably the selling record. A bit of phlegm, tiny, unimportant on the concert platform or operatic stage, where one may expectorate comfortably at will, seems to float across my chords. A burning rage seizes me. I look up and shake my head at the leader. He may not even have heard it, but he taps his baton—the orchestra stops. I say: 'Isn't that maddening? A miserable frog—I'm so sorry!' No one pays any attention to me."

The Last Attempt.

"They resume their tuning up and trilling while another wax is adjusted. Off we go again. By now a tinge of boredom has crept into everyone at the many repetitions. This is a blessing in disguise, as one is automatically less nervous on account of it and—at last we have made a master.

"The almost perfect, careful singing you have done has put your voice in fine condition for the next number, and you repeat the whole process. You are tired at the end of the session from standing so long in one spot and from the strain of trying to do your very best.

"Sometimes I have made a master record at the second repetition. Sometimes it takes an hour to get one acceptable record."

Wrongs do not leave off where they begin. But still beget new mischiefs in their course. —Daniel.

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Parents as Educators

Right Habits for Children—Obedience

BY GERTRUDE E. SKINNER.

The life of every individual is largely made up of habits. The time when habits are most easily formed is during the early years of life. It is therefore most important not only that habits are formed which will develop the best children to-day and the most useful citizens in the future, but that the formation of all good habits begin very early in life.

Everyone interested in the children of to-day desires to see them develop into good boys and girls and later into the right kind of citizens. Good habits are, however, essential in the child's life if he is to become a good citizen.

There are many ideals and standards to be desired, many good habits that should be formed in early childhood—truthfulness, honesty, justice, cleanliness, service, courtesy and obedience. In this brief article we are to consider but one, obedience, to the laws of home, school, state and country. If we are to have law-abiding citizens, we must have obedient children in the home and school.

It is a common criticism to-day that children do not obey. If this is a just criticism, the fault is with the adult, not the child. It is often too much trouble to insist upon obedience but this course will lead only to greater trouble in the future. Sometimes it

is the right of the child to be told the reason for a request or command, but there are times when prompt and unquestioning obedience is essential. If a child is in danger, there may be no time to reason, argue or explain—in such a case prompt obedience may be necessary to save him from serious injury. The habit of obedience will never be formed through making unreasonable or unjust demands, but a demand once made should be followed to the end—absolute obedience.

There is no place in society where the law-breaker is welcome—there is no gang or group in child life in which the child is wanted who does not respect the law of the group. The child who does not obey will develop into a citizen having little or no respect for the laws of the community.

A free country is not a place where every individual does as he pleases, regardless of the rights of his neighbor, but a place where every individual has a right to the opportunities of the land and the privilege of making the most of them, provided he does not interfere with the rights of other members of society.

It is the duty of each to obey the laws of the group, and the place in which this respect for law, order and the rights of others should be inculcated is the home.

Sunflower Varieties.

Although sunflowers have been known and used for a great many years, it is only in recent years that the wide agricultural possibilities of the crop have been recognized. With the advent of mixed farming in the former strictly grain growing areas of the country and the increased recognition of the value of the silo has come the demand for silage crops in areas unsuited for corn growing. It is in this connection that sunflowers offer the greatest possibility.

As yet there has not been sufficient breeding work or testing of varieties to warrant any definite statement regarding the different so called commercial varieties. As the sunflower is an open fertilized plant, most commercial seed is a mixture of types. This fact, however, affords us a good chance of eventually securing uniform varieties of the most desirable habit of growth. At the present time the Forage Crop Division has isolated a large number of types of sunflowers. These range in height from three feet to seventeen feet and in habit of growth from unbranched types having a single head to types having branches at each primary leaf axil, and numerous heads. There is also a wide variation in habit of branching from branches growing straight out to those that grow almost parallel with the main stem. Some of these types give considerable promise of becoming very desirable commercial varieties.

The commercial varieties tested so far at the Central Experimental Farm have shown a variation in yield from as low as ten tons per acre to as high as twenty-three tons. The most satisfactory of these varieties available to the farmer is the Mammoth Russian. The published results of other sunflower experiments in Canada and the United States are also fairly well in accord in recommending this variety as the safest proposition at the present time for the man who desires to grow sunflowers for silage.

Two good ways to work alfalfa into the rotation: Corn, oats, alfalfa, alfalfa. Potatoes, wheat, alfalfa.

Trade unions, as known in America, are illegal in Japan.

"A GOOD SCOUT"

These three words mean much in boyhood and manhood for they bring to the mind the qualities of a real man. These qualities are hard to describe, but they involve a big consideration of others, a willingness to take rebuffs when fighting life's battles on the square, and a clean, upright personality. In the vernacular of the street, a "good scout" is "a real guy."

While these words have always had their meaning, they have had added significance during the past generation because of the development of the boy scout movement. This movement has had a world-wide effect in making real men out of various kinds of boys, and in doing so has added considerably to the quality of manhood.

In our present day a boy develops to disadvantage if he is allowed to just "grow up." Civilization has brought about so many disadvantages which prevent the natural development of the child. But a consistent, well-founded program of development like that of the Boy Scout movement, the Girl Guides and the Boys' and Girls' Club work makes better boys than Nature ever thought of making, because it gives Nature a great assistance.

Because of the great importance of habit forming in the years of youth, it is vital that every parent bring to his child as much of the influences of the good boy and girl activities mentioned above as he possibly can.

And, too, if we are frank with ourselves, we find life so imperfect, so full of petty failing, that it will help us all if we will keep before us the ideals of a "good scout."

French Canadian Cattle at Cap Rouge.

The herd of French-Canadian cattle at the Cap Rouge, Que., Experimental Station may not be the largest in existence to-day, though it numbers about sixty head of registered animals, but no other herd can boast a larger proportion of Record of Performance females. There is not a cow having passed two periods of lactation which has not qualified and no heifer will remain at Cap Rouge which cannot do so. This rigid rule, however, has not eliminated many heifers, in latter years, as practically every one of them qualifies.

This herd was built up since 1911, and a few important lessons were learnt in building it up. One of them was that it is impossible to do constructive work without having and keeping the animals in first class health. How can a cow be a vigorous producer if she has not the full vigor required to give large quantities of milk? How can a number of females be regular producers if contagious abortion is present in the herd? How can strong heifers be raised if calf scour sap their vitality when young? It may thus well be said that no constructive work can be done unless healthy animals are used.

Another lesson which was brought distinctly to light is that it is impossible to improve the milking qualities of dairy cattle, however good the females may be, unless the sires are out of heavy producers. When starting the Cap Rouge herd, a magnificent looking bull was bought, one that could have won at all the shows, and moreover, an animal which, according to ordinary standards, was of good dairy conformation. But every one of his daughters, over twenty-five in number, had to be sent to the butcher, because poor milkers. And, later on, when some of the dams of these poor milkers were bred to bulls out of known heavy producers, they gave heifers which easily qualified for Record of Performance.

Three of the four herd bulls were dropped at Cap Rouge; the sire of two of them and the dams of all three have qualified for Record of Performance. And the regularity with which heifers qualify show that breeding really counts. Now that the quantity of milk has been increased, other traits, such as percentage of fat, conformation and size, will be attended to, though the writer believes that one at a time is enough to satisfy the ambition of any good breeder.

With the present tendency everywhere to buy milk according to fat content, the little French Canadian cow will come to her own. Of course, in localities where other breeds have been used for a long time, it would be better to continue the improvement with bulls out of higher testing cows of the same breed, but in places where the stock has been mixed or is mostly scrubby, it is sure that bulls of the French Canadian breed, known for its easy keeping qualities and the rich milk of its cows, will be a paying proposition.

Of all farm machinery, windmills come close to needing the most oil, and they get the least.

Says Sam: If your boy bankers after city life; let him try it on one of these real hot days.

For every bushel of wheat are produced about one hundred pounds of straw.

He who aims only at the lowest is sure never to attain to the highest, but is not unlikely to miss even the lowest. —Browning.