

SCHOOL SPORT EVENTS

Competition for Swinner-Cup Arranged to Take May 23rd—Conditions

A competition for the Swinner-Cup trophy symbolic of athletic ability among the local public will be held on the afternoon of May 23rd at the Bay grounds. The trophy is a silver cup presented by the late Mr. J. B. A. A. management. Other details in connection with the event were discussed and arranged.

Up athletics officers are as follows: Honorary President, George Jay; President, E. B. Campbell; Treasurer, W. N. Winsby; Secretary, Elliott; Salloway, Pollock, Fraser and Capt. McIntosh. Puncture having been made that he had come to an understanding with the May 24th celebration of which \$130 was raised for the expense of the event. It was concluded that the event would be the same to the general festivities. It must be accompanied by a race will be accepted up to next month.

Preliminary Contests.—The length of the program was made and that all the preliminaries to the main event and the main event will be held on Friday, May 20th, at 12:30 o'clock, on the Bay grounds. It was made clear that contestants, other than the "Old Open," must be bona fide pupils of the school. Stress also was laid on the fact that no pupil may take more than three events, and those participating in races those under 16 years of age, in totaling points to decide on the Swinner Cup.

The Programme.—The programme was drafted and open (the term "open" is of any age attending) as follows: Boys under 16 years, boys under 14 years, boys under 12 years, boys for old boys who have in previous meets, boys, open, boys under 16 years, boys under 14 years, boys under 12 years, boys under 10 years, boys, open, boys under 16 years, boys under 14 years, boys under 12 years, boys under 10 years, boys, open, boys under 16 years, boys under 14 years, boys under 12 years, boys under 10 years, boys, open, boys under 16 years, boys under 14 years, boys under 12 years, boys under 10 years, boys, open, boys under 16 years, boys under 14 years, boys under 12 years, boys under 10 years, boys, open.

NUMBERS IN AUSTRALIA

Majorities for Labor in Both Houses Commonwealth Parliaments Results of Referendum

N. S. W. April 21.—The result of the general election of the party of ten members and of thirteen representatives. In two questions submitted to the electors, the proposal that health take over the states was affirmed, but the second question, relating to the selection of financial relations between the Commonwealth and the States, was rejected.

River Hatchery.—Whitwell, Johnstone arrived from the north as May, having traveled in a canoe as the Skeena is still very high. The steamer operator about 50 miles upstream trying to break bars and rapids. The been very cold in the quantity there is very little water, but should be summer very high. On account of a amount of snow that the record taken was 304 inches for the year. The season's work was 4,200,000 sock-sock condition having

News of Brother.—Lettie, who was Miss of this city, seeks news of her brother who was last heard of in the event of this. She asks that he write to, Coalina, Mining in Mexico.

RURAL AND SUBURBAN

POULTRY KEEPING

(By an Expert)

A cross-bred fowl is entirely different to a mongrel, and the two must not be confounded, although they are often regarded as one and the same thing. A mongrel, which is never recommended under any circumstances whatever, is a bird that contains the blood of innumerable varieties in its veins, no special object having been aimed at in selecting the parents, if, indeed, there has been any selection at all. A cross-bred bird, on the contrary, is one that contains the blood of two distinct varieties, but in this case the breeder has had a particular aim in view, and has chosen the parents accordingly. Those of my readers who are fanciers are naturally only interested in pure-bred fowls, since crosses are useless to them. They should realize, as probably they do already, that birds that are not quite true to type are merely occupying space, consuming food, and involving labor from which they can reap no return. To the utility man, however, it is the economic and not the fancy characteristics that appeal, and it does not matter to them whether their birds possess every show point wrong, so long as they are good layers or suitable table birds.

There are several advantages in using pure-bred fowls, apart from the fact that to the fancier they are essential. Birds that are pure always possess a much higher selling value than those that contain the blood of two or more breeds in their veins. An excellent demand exists in the autumn and early winter for stock birds, quite an ordinary price being 75 cts. for pullets and half a guinea for male birds. These prices are for well-bred, healthy stock, and not necessarily for show specimens, for which a very much higher figure would have to be given. With pure-bred fowls, the time the chickens take to reach maturity can be more easily determined, besides which the breeder knows more exactly what his chickens will be like. Moreover, when dealing with pure-bred fowls there is always the chance of breeding a particularly fine specimen worth a considerable amount of money.

The Advantages of the Cross-Bred

Cross-bred fowls possess several important advantages, chief among which is their hardihood and vigor. If one is living in a cold or exposed situation, or upon heavy clay soil, then it is decidedly an advantage to use crosses, as they are able to withstand the unsuitable conditions much better than the majority of pure-bred fowls. There are a few varieties that are extremely hardy, such as the Leghorn and Redcap, that thrive amid the most adverse surroundings, but as a general rule a cross is far harder than a pure-bred. Another advantage of crossing is that it is possible to minimize defects of an otherwise useful variety—defects that may render the particular breeder quite unfitted for practical purposes. Then, again, it is possible in crossing to combine in one bird the good qualities of two breeds; if a table bird and a layer are mated together the progeny will probably be general purpose fowls. A very common mistake that many make in crossing is the mating together of two varieties possessing similar characteristics. This serves no useful purpose whatever; except to give added vigor to the offspring. It is useless, for example, crossing a Wyandotte and an Orpington or a Leghorn and a Minorca as these varieties are practically the same. A cross, on the other hand, between an Orpington and a Leghorn may serve an extremely useful purpose; it should certainly increase the size and number of eggs produced by the pure Orpington; while a much greater proportion of eggs should be produced during the winter by the pure Leghorn.

A Useful Shelter

An important matter during wet or cold weather, and one to which attention should be given if winter eggs are to be plentiful, is the provision of shelter for the laying flocks in the field, but where, as is usually the case, stock are running over the same land this is often no easy task, because sheep and cattle are very destructive to temporary erections, and the question of expense in erecting solid structures has to be considered. One way to meet the difficulty can be found by using hurdles either wattled (which, though more expensive, save labor and are always ready for use) or covered with gorse, and securing these firmly to strong stakes driven into the ground, forming an enclosure within which the fowls can take scratching exercise and get ample shelter from cold winds and wet, yet plenty of fresh air. By using three hurdles for the back two each for the sides and two for the front, which should face due south (having the opening nearest the east side), a large number of fowls can find shelter. The roof can be constructed either of similar hurdles laid flat and secured firmly to the sides or of strong unbleached calico that has been thoroughly saturated in boiling linseed oil and then dried. This latter has the advantage of being both waterproof and semi-transparent, but in that case it must be given a slight fall to run off rain. Bars of wood should be nailed across to prevent stripping by the wind. The scratching material can be of dried leaves, as offering no temptation to cattle, and a few boards nailed at intervals across the opening will keep the material from being scratched out and stock from trying to enter, though the fowls can get through. Such a shelter costs little but the labor involved, which is not great. The same shelter turned to the north is equally useful for shade in summer.

One Result of Over Feeding

There is probably no more frequent cause of a small egg supply than that of the hens being in too fat a condition, and I think it is no exaggeration to say that fully 50 per cent. of the laying hens in this country are too fat.

PREPARING SOIL FOR THE SEED

As the time is near for cultivating fields for spring crops, it is well to discuss the different methods in order that we may arrive at some plan to do the work economically and well. Grain crops, such as wheat, oats and barley, should be sown on land plowed the previous autumn. Spring-plowed land does not, as a rule, give as good results when sown to spring grain. Fall-plowed land being exposed to the

ing the land at right time? I fear not. The general practice is as soon as the seeds are sown to roll the land. For the past few years I have changed my system. Instead of rolling after seeding, I wait until the soil is dry on the surface. Sometimes the grain is from four to six inches high when rolled at this time. We level the land. By levelling, the crust that has thereby formed the much needed mulch to supply moisture to growing plants.

Roots should follow meadow or pasture. In preparing the land for roots it is best to begin working the soil immediately after the hay is off the previous year. Cultivate the land thoroughly up to autumn, then manure and plow. If the land can be subsoiled a better crop will be secured. In the spring time, it sometimes pays to plow again, especially if there has been a strong growth of weeds, or

clover out of the mixture during the winter. I threshed 1,600 lbs. of clover seed from nineteen tons of this mixture and it paid well.

ABOUT SILOS

The rapid advances of dairying in its various phases has called the attention of the dairyman to the question of silos. Although at an earlier date, the silo was severely condemned, this denunciation is no longer retained, because the principles upon which silos and silage are based are more thoroughly understood.

One need only talk with a few of our progressive dairymen to realize the value of silage. Farmers are awakening to the necessity of keeping their animals as near to natural conditions as possible. The pasture in the summer affords this, but with the long winter season, in which the farmer is obliged to house his animals, some substitute for this natural condition must be adopted. Silage answers this purpose admirably. It adds succulency to a ration, keeps the animals in a healthy condition, aiding digestion of the more concentrated foods by increased enzymic action, as well as supplying a valuable food in a cheap form. Experiments carried on at Guelph Agricultural College go to show that without silage, milk is produced at a greater cost per pound, owing to the necessity of feeding a heavier grain ration in order to overcome the result of cutting out the silage.

Summer silage is rapidly gaining favor among dairymen who wish to keep up their supply of milk during the summer months, when the pastures are dry and bare. The marked decrease of milk during this time is very noticeable, and the cause is equally apparent, while the remedy is evident to all, it being to supply some food which is cheap, easily grown, and possessing the nutritive value of grass. Silage does this to better advantage than any other food or roughage known.

Regarding the question of silos, the shape naturally presents itself first for consideration. There are three general types, viz.: round, square and rectangular. The round silo is the most popular because of its many advantages that make it worthy of consideration. It contains the least amount of waste space; possesses greater strength, equal pressure being distributed throughout, and in the question of capacity it requires less lumber for a given space. The square silo may be built to an advantage in the corner of a barn. The chief disadvantage is the difficulty of packing the silage sufficiently to exclude the air at the corners, and unless this is accomplished, fermentative action is set up, which ultimately results in decayed silage. The rectangular silo, itself, has fewer advantages than the square, because of its numerous corners, which prevent the silage from compacting firmly.

There are numerous materials employed in the construction of silos, among the most commonly used are wood, concrete, cement blocks, and steel. Which to use will depend largely upon the money at the farmer's disposal, or his preference. Wood and stone will, undoubtedly, make the cheapest silo, and if properly looked after, will give satisfaction for a long time. The concrete and cement silos are rapidly gaining favor among those who have them, because of their lasting qualities. The steel silo is practically unknown. The foundation is built of stone and cement with bolts set in the foundation at equal distances apart, with an eight-inch ring fastened with bolts to commence the steel with. The steel that comprises the walls is in sheets 54 inches by 10 feet long, rolled, punched and riveted together. It is fourteen gauge steel, and a compound is used for coating the inside. This adheres to the side, and is harder than cement. The cost of a silo of this description (12 feet by 37 feet) is about \$165, \$21 for foundation, and \$30 for labor, making in all \$246. Just how popular this will become remains to be seen.

Stone and brick should always be coated with Portland cement to a very smooth finish. If washed each year will last from twenty to thirty years longer. Lathed and plastered silos have not been a success. They are inclined to crack, soften by the acid of the silage and become injured by the fork. Moisture gradually makes a passage through these blisters and injures the woodwork by decay. Sheet iron and roofing tin are not satisfactory for linings. The metal rusts even when coated with paint or coal tar. The action of the acid injures the efficiency of the paint. Roofing tins are usually coated with lead poisons. The Wisconsin Experiment Station experimented with two silos lined with metal, and it proved a failure. Two layers of boards with tarred paper between is considered to be a good lining. The first layer of boards should be placed perpendicular, especially so if the silo is rectangular. If the silo is round it is well to put the second layer on horizontally, taking care to break all joints. Boards half an inch thick and six inches wide are the most satisfactory.

The main thing of importance in the silo floors is to make it firm, smooth and rat proof. It is always well to have the foundation built of stone or cement, and built in a trench to give drainage.

The silo should be well ventilated, as stagnant air collects moisture, decay sets in and in a few years the silo is useless. A suitable opening should be at the top. A roof is only necessary when the silo is built out of doors, the cost being a matter of taste, the object being principally to exclude rain and snow. In building the roof the question of ventilation must not be overlooked.

The capacity of a silo will depend upon the needs of the farmer. A cubic foot of silage under average conditions will weigh from thirty to forty pounds. The latter is sufficient for one cow under ordinary conditions. If silage is fed two hundred days in the year, a cow will consume eight thousand pounds, or four tons. For

a round silo thirty feet deep, King gives the following diameters of a silo, thirty feet deep for herds ranging from 30 to 100 head:

Thirty cows—Square feet consumed, 150; inside diameter of silo, 14.

Fifty cows—Square feet consumed, 200; inside diameter of silo, 16.

Fifty cows—Square feet consumed, 300; inside diameter of silo, 18.

Sixty cows—Square feet consumed, 300; inside diameter of silo, 19.75.

Seventy cows—Square feet consumed, 350; inside diameter of silo, 21.25.

Eighty cows—Square feet consumed, 400; inside diameter of silo, 22.75.

Ninety cows—Square feet consumed, 450; inside diameter of silo, 24.00.

One hundred cows—Square feet consumed, 500; inside diameter of silo, 25.00.

The depth of the silo is of considerable importance, and should not be overlooked. There are three striking reasons why it should be made as deep as practicable. (1) The largest amount of feed per foot can be stored in this way. (2) Less loss at surface during slow feeding, the silage being so closely packed air cannot enter readily from the top. (3) The downward and lateral pressure forces the silage so closely to the wall that the air is largely excluded, resulting in a silage of much better quality. The outward pressure increases at the rate of eleven pounds per square foot for every foot of depth.

In constructing a silo it is very important to have the horizontal dimensions such that the rate of feeding will be rapid enough not to permit moulding to occur, on the exposed or feeding surface. Feeding at the rate of less than half an inch daily, moulding is liable to set in.

Of the many crops grown for silage, experience has shown that only a few are well adapted for this purpose, those having solid stems will make silage with less unavoidable loss than those having hollow stems. Of the various crops grown, none seem so well adapted for the silo as corn, where ever it will reach maturity. The unavoidable losses with it are very small, heavy yields may be obtained with great certainty at a moderate cost; silage made from it has less objectionable features than when made from any other crop; it is not severe upon land.

The sweet corns do not make the best silage, as the sugar tends to develop into acid. The large varieties of southern corn produce more roughage to the acre than do the small dents or flints, but the silage is of an inferior quality. Among the other crops grown are millet, clover, rye, oats, pea vines, saccharine sorghum, non-saccharine sorghum, and alfalfa. If corn cannot be successfully grown, some of these may be substituted, the kind depending on the climatic conditions. Pea vines are frequently used for ensilage when the peas are grown for canning purposes.

The state of maturity at which a crop is placed in a silo is important. Experience has proved that the nearer a crop is to maturity, the tissues being filled with sap, the better the silage fibre. Immature crops do not possess sufficient fibre to retain the sap under pressure. Corn is in the best stage for the silo when the ears are fully matured, but the stocks, leaves, and husks are green. The sooner corn is placed in the silo after cutting the better. At this time the cells are alive, little air being present, and the possibility of fermentation being reduced to a minimum. If the crop dries out, too much air is incorporated with the silage for its best keeping. Should it dry out, wetting is desirable, but it should be remembered that water can never take the place of natural juices.

A slow filling is more preferable than a rapid, yet should not be too slow. A steady filling, perhaps eight to fifteen tons for a small silo, is preferable. A large silo may be filled in proportion. Danger in filling a silo is sometimes met with. Carbonic acid may develop to such an extent that it becomes impossible for a man to live in a silo. The presence of such is shown by a lighted match being extinguished immediately. Before entering the machinery should be started, this causing a current of fresh air which will displace any poisonous gas. In filling a silo it is important that the silage should be thoroughly tramped, especially at the edges, as here, owing to friction, it fails to settle sufficiently to completely exclude the air. It should be tramped once a day, for three or four days after being filled, particular attention being given to the silage next the wall. Silage is frequently covered with some material a few days after it has been in the silo to assist in the exclusion of the air. Marsh grass or any substitute may be used. The grass is cut, spread evenly to the depth of three inches, tramped and wet at the rate of one pair to every square foot of surface. This will soon form an impervious layer which will totally exclude the air, and check the action of fermentation insuring silage of good quality provided it has been well matured and properly harvested.

Those who contemplate the building of a silo should study the question quite thoroughly. There are many important things worthy of consideration. Where a man possesses a thoroughly good silo, it is well to have it somewhat larger than is necessary for immediate demands, so as in a large measure to be unaffected by the variability of seasons. Silage may be carried from year to year with little loss, so that one is able, if he has a silo, to store a reserve of food in seasons of heavy crops to be used in seasons when they fall below the average. In this way one is not only independent of seasons but he is able to carry a much larger herd upon the same amount of land. Silage in a good silo does not appear to materially deteriorate with age; cases have been reported where it has been fed when six years old. For the above reason the silo has become an important factor in dairying during the summer season.



A NEW SINGLE CHRYSANTHEMUM—"MRS. W. PARKER"

This new variety is a remarkably free-flowering one and should prove a good market flower. The single blossoms are of good shape, and frequently as many as ten are found on one spray. The color is white, faintly tinged with pink. It was shown before the Royal Horticultural Society recently by Mr. F. Brazier, Caterham, when it received an award of merit.

winter's frosts is easier worked in the spring time. But the greatest advantage is that when the soil is in fit condition to plow it is also in fit condition to sow. The early sown grain has always the advantage over the latter sown as well as the other crops to follow, as the farmer has time to look after them instead of plowing in springtime.

If the farmer, says Mr. J. Fixter, in Canadian Farm, has been unfortunate in not having his sod lands plowed, do not, as too often is the case, start plowing before the soil is dry enough to crumble. Many will have seen teams plowing when the tough sods would scarcely carry them and the gloss on the furrow could be seen a considerable distance away. To all such I would say keep off the land until it is dry enough to crumble and the trace of the mould board can scarcely be seen. Land prepared for spring seeding should be as fine on the surface as if it were for garden seeds.

The grain crop in a well regulated rotation should follow a hoed crop, therefore the corn stubble and root ground should be thoroughly plowed in the autumn. The disc harrow will be found best for the corn stubble. The character of the soil will determine the number of times necessary to go over the field. The next implement is the smoothing harrow, this also is to be gauged by the fineness of the surface soil. If the land has been in roots, the spring tooth cultivator and smoothing harrow will be found best.

It sometimes happens that the farmer does not require as much land for corn and roots as for grain, this I am sorry to say. In such cases, it is best for the grain to follow the pasture or meadow, having previously given the land thorough cultivation after harvest and during the autumn of the previous year. In the spring the spring tooth cultivator and smoothing harrow will make a perfect job if the farmer is willing to spend the time (it certainly will pay him).

Of the several kinds of seed drills I have used, I find the single disc seeder to give the very best of satisfaction. Have we been roll-

the soil baked rather hard. It is best to plow shallow, cultivate, then harrow, rib and roll the ribs down to about one-third before sowing.

In preparing corn land my practice is to follow meadow or pasture, having put out the manure in small piles during the winter. It is spread in the spring just as soon as the snow is off the land. By spreading very early the spring rains will wash the manure into the sod, forcing its growth and making the manure much easier to turn under should the land have sow thistles or quack grass. I would not advise plowing until just the day or two before planting the corn. Plow as deeply as the soil will allow, up to six or seven inches, disc and harrow thoroughly, make a perfectly fine seed bed, then plant the corn. After the corn is planted keep the harrows going at short intervals until the corn appears. This point of harrow plant is one of the secrets for killing weeds and forcing the growth of the corn. After the corn is up keep the cultivator going as long as possible.

The varieties of grains, grasses, corn and roots that have given us the best results here are as follows: Oats—Banner, sown from two to two and a half bushels per acre. Barley—Mensury, or Mandeschuri, two bushels per acre. Corn for ensilage—Leaming or Mastodon; corn for grain and dry fodder—Quebec yellow, Longfellow or Crompton's early.

Mangels—Mammoth, long red mangels. Sugar beets, rosy and white will, I think, in time replace any of the mangels.

Carrots—Short white.

Swedes—Champion or prize purple top.

In seeding grasses and clovers, sow thirty pounds of alfalfa per acre, a mixture of ten pounds timothy and eight of common clover, per acre. (Farmers should try this thick mixture, grow two crops the same season, but don't fail to save the second crop for clover seed—it pays). An excellent mixture is timothy, five pounds; orchard grass, five pounds; common red clover, five pounds; alfalfa, five pounds. This should give a second crop the same season. But don't fail to thresh the red