

### New Bordeaux Mixture.

An improvement in the formula for making Bordeaux mixture. This was first suggested at a meeting of the National Agricultural Society of France, and was designed to remove certain objections to the use of the old mixture. It has the advantage over that famous mixture in being less injurious to foliage, less liable to be washed away by rains, and less liable to choke the nozzle of the spraying machine. The formula is as follows:

Quicklime	4 lbs. 6 ozs.
Sulphate of copper	4 lbs. 6 ozs.
Molasses	4 lbs. 6 ozs.
Water	22 gallons.

The essential difference between the new and old formula is the presence of the molasses, which has a greater influence than would at first be suspected.

The prescription as given by M. Perret is to add the molasses to thirteen gallons of water, then slake the lime and add four and a-half gallons of water to form milk of lime. Pour this slowly into the sweetened water, stirring briskly, in order to mix intimately. Next, in the third wooden vessel, dissolve the bluestone and pour this into the previous mixture, stirring well. In this blending of materials chemical changes are taking place. When the milk of lime and sweetened solution are intimately mixed together, then saccharate of lime is formed. Next, when to this is added the solution of sulphate of copper, a double decomposition takes place. Sulphate of lime is formed on the one and soluble saccharate of copper on the other. This saccharate of copper is only formed in presence of an excess of lime, and its formation is indicated by the mixture assuming a beautiful greenish tinge. Thus the mixture is rendered alkaline, the acid being neutralized by the lime.

### QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

#### Legal.

J. W. B.:—"A sold a mare to B, and took his note for the price; B bred the mare, and while the mare was in foal B sold it back again to A. Is A liable to the owner of the stallion for the service?"

[Assuming that there was no fraud, and that the sales of the mare were bona fide, A is not liable.]

#### TENANT REPAIRS, ETC.

PROSPECT HILL:—"I leased from B a farm for five years, he agreeing to make certain repairs during the first year. B, however, died before making the repairs, and his executor now refuses to make the repairs as called for by the lease. There was a mortgage on the farm before I leased it. How can I get the repairs made, or what is my remedy?"

[The contract in the lease (if the lease is properly drawn) is enforceable against the executor of B in a similar manner as if B were alive, provided there is sufficient estate of B's in the executor's hands or control. The mortgagee (having his mortgage before you took the lease) has power, however, if he so desires, to demand the rent from you, and if he does so you would be compelled legally to pay to him the rent you would actually owe to B to the date of the demand, after deducting or setting off against the rent any amount that would be fairly due to you for damages accrued to you by reason of the repairs not having been made, or for any repairs actually made by you which B had contracted to make and did not make, and which his executor refused to make. If the mortgage, however, is in arrears, the mortgagee, after giving you notice to pay the rent to him, would be entitled to the whole rent from that time forward, and he, even in that case, could refuse to recognize you as a tenant at all, and could eject you from the premises by process at law. In the meantime, however, until the mortgagee interferes, you can spend the rent money in making the repairs contracted for, and charge the amount against the executor as rent paid to him, but you are not safe in laying out more than the actual amount of the rent.]

J. E. M.:—"I hire a boy for a year for \$70.00. During the year he, against my express orders, went away and joined the volunteers, and went into camp with them. 1. Have I to keep his place open for him? 2. Can I hire another person to do his work and charge the wages to the boy? 3. If I refuse to take him back, will I have to pay his wages up to the time he left?"

[1. No. 2. Yes. 3. No.]

#### Miscellaneous.

CURED GREEN CORN FOR FODDER—STACK ENSILAGE. N. S., Brookfield, Nova Scotia:—"1. Can good feed material be made from Indian corn cut green, if cured dry like hay, cut up and mixed with cut-hay—half each—such being for dry stock chiefly?"

"2. Can good ensilage be made in stack out doors without silo, when it can be subjected to a powerful continuous and alterable pressure as desired? Such stack could be covered by some simple system of boarding up sides, if desired, or thatched with coarse hay, etc., as a protection against the severe frosts of Canada. What corn would be best for such purposes? Would Red Cob suit well?"

[1. Very good feed material can be and often is made by curing green corn in the shock. It should not be cut before the grain has reached the milk stage. It would give good results if fed with cut-hay or good straw. Red Cob is suitable.

2. The most authoritative information we have seen on stack ensilage is from a paper by Admiral Campbell, of the Highland and Agricultural Society of Scotland, who speaks very favorably of stack ensilage made from coarse grasses cut during the tender and succulent stage. He also speaks of thistles, sprits, rushes, ferns and all wholesome herbage, cut early, being suitable. The Admiral speaks of using two rollers, one weighing, when full of water, 19 cwt., and the other 14 cwt., each of which made equally good ensilage. He also claims that good results can be obtained without using weights of any sort, as the enormous weight of the material in its green state does its own work. He says also:—"In the days of built silos we used to hear of sour ensilage, but with the stack system there is the sweet produce only. Silage properly made is undoubtedly as good the second year as the first; to say the least, it loses nothing by keeping for that time. Saving of waste depends much upon care in making and dressing the stack as it goes up, and upon giving it 12 inches less spread at the eaves; i. e., if it is wanted 15 feet broad at the top, it should be 16 feet at the base, the ends in proportion." This testimony comes from Scotland, where the growing herbage seems to have more succulence and the atmosphere more moisture than in the greater part of Canada, which factors appear being favorable to the making of stack ensilage. However, as Nova Scotia has conditions resembling Britain fairly closely, we would suppose that the practice could be carried out fairly successfully in that country.

We have never heard of corn being successfully used in making stack ensilage, nor do we think it would be suitable, owing to the fact that the size of the stalks would prevent it from packing sufficiently close to keep out the air—a condition necessary in the keeping of silage. We might also add that owing to the severity of Canadian winters, except in favored locations, ensilage, except made in a silo, would waste considerably by freezing. We would like to hear from any who have given stack ensilage a trial; also from those who have satisfactory methods of curing corn fodder without silo, in shock, stack, or otherwise.]

#### HADENA ARCTICA.

W. H. RYAN, Grey Co., Ont.:—"This part of the country is invaded by moths, some of which I send you. They crowd into the house at night in great numbers, light on clothes and stain them. Their numbers make them a nuisance. Would you kindly let me know their name and habits?"

[The accompanying cut represents the moth *Hadena arctica*, which is the variety sent us for identification. They are very numerous in all parts of the Western peninsula of Ontario Province this season. This insect appears the middle of May in the form of a grub, closely resembling the

cut-worm; in fact, it is classed among cut-worms.

It severs by night the young succulent shoots of currants, roses, etc. It is  $\frac{1}{2}$  inches long, of brownish or livid color, having a chestnut-colored head and a horny spot of the same hue on top of neck and of last segment of body. Burying itself for about a month, a moth comes out from the middle of June to July 1st. Its fore wings are rusty-red, clouded with gray and black. This is one of the most common night-flying moths. It may do harm in the house by staining goods and walls, but it does not, as many suppose, eat holes in woolen goods, as it is a vegetable feeder.]

### SHOWS AND SHOWING.

#### Toronto's Great Fair.

The Toronto Industrial Fair, which will begin this year on the 2nd of September, continuing until the 14th, promises to do more than sustain the reputation won by the brilliant successes of the past. Among the improvements undertaken on the grounds may be enumerated new drains between the horse stables and the cattle sheds, to carry off the water from the down pipes; the re-grading of the stalls in the cattle sheds, and a new building in the latest and most improved style for the exhibition of sheep, erected at a cost of \$6,000. The track is also being greatly improved, and arrangements made for exhibiting harness horses upon the track when it is desired by exhibitors.

The prize list is now published, and as it has been subjected to a thorough revision, some of the leading features may be briefly noticed. In the horse department there is comparatively little change; the most important alteration being the addition of fourth prizes in some sections. Numerous changes have been made in the premiums for cattle, a considerable amount being added in the Jersey, Ayrshire, and Holstein classes, while the prizes for Devons and Herefords have been reduced on account of the smaller competition. A third prize has been added to all sections in the Guernsey class. These inducements should bring out the largest exhibit of dairy breeds yet on view at the Exhibition, especially as a fourth prize has been added to all sections in the Jersey, Ayrshire, and Holstein classes. The ages of the milk breeds will be calculated to the 1st of August, instead of to the 1st of September, as formerly.

Large prizes for the milk test, on the same conditions as last year, are also given. In the sheep department, several special prizes are given, and a number are offered for wool in the fleece.

The Association will probably not be able to erect new pig pens this year, but exhibitors will be so faced for this department by the addition of \$100 to the prizes in that department. The pens will only be put up next year. The prize list for grain, roots, vegetables and horticultural

products has been carefully revised and the amounts in many cases increased.

The growing importance of the cheese industry has been recognized by a judicious increase of the prizes in this department. The premiums for white factory cheese have been augmented to the same amount as was formerly given for colored cheese. The cheese prizes are divided among cheese made in June, July, and August; the first two months being classed together, and the August cheese separately. Liberal prizes are again offered for both creamery and farm dairy butter. The prize fund in this department has been augmented by subscriptions from the Eastern and Western Dairymen's Association and the Ontario Creameries' Association. There are numerous other alterations made in the prize lists in the other departments calculated to afford greater inducements to exhibitors and secure a more extensive display, but we have only space to refer to those in which the farmers are more directly interested. Those who desire a copy of the list can obtain it by mailing a post-card, with their name and address, to Mr. H. J. Hill, Manager, Toronto.

The growing popularity of the great Toronto Fair among the farmers, and the immense numbers who every year come from all sections of the Dominion and many places beyond its borders in order to avail themselves of this opportunity to familiarize themselves with the latest improvements in agricultural and mechanical processes, are the best evidence of how thoroughly it has served its purpose. In no other way can a person learn so much in a few days, and at a comparatively trifling expense, of the progress that is being made in art, science, and mechanical invention, not to mention improvements in live stock, husbandry, and agricultural production. As usual, railway fares during the Exhibition will be very low, so that a visit to this great centre of attraction will practically be within the reach of all. During July a circus will travel through Canada, and many inducements will be held out to attract farmers and rural residents to visit it. But when the relative benefits of the two are considered, it is easily apparent that the people will gain much more substantial and lasting advantages by taking a holiday and visiting Toronto, where they can share the practical instruction afforded by the display at the Fair, combined with a reasonable amount of entertainment and recreation, than from the time and money spent at the circus, where nothing useful or instructive is to be learned.

Intending exhibitors should bear in mind that all entries in the live stock department close on August 10th, and to avoid the rush caused by postponing everything to the last, no delay should take place in sending them in.

#### Preparations for the Fat Stock Show.

The Ontario Provincial Fat Stock Club was organized in Guelph on June 18th. The Agriculture and Arts Association was represented by J. Sissons, Barrie; D. P. McKinnon, South Finch; J. C. Snell, Edmonton; R. McEwen, Byron; A. Rawlings, Forest; Henry Wade, Toronto; Wm. Dawson, Victoria. The Sheep and Swine Breeders' Associations were represented by R. H. Harding, Thorndale; G. B. Hood, Guelph; J. Jackson, Abingdon; James Tolton, Walkerton; F. W. Hodson, Guelph. The Guelph Fat Stock Club was represented by Jno. I. Hobson, Mosborne, and James Miller, John McCorkindale, and James Anderson, Guelph.

Officers chosen.—President, John Sissons; Vice-President, Jno. I. Hobson; Secretary, Henry Wade. The following committees were appointed:—

Executive.—Messrs. Wade, Hodson, Hobson, Miller, Snell, and the President; Superintendent, Herbert Wright, Guelph. Committee on Cattle.—A. Rawlings, Jno. Miller, D. P. McKinnon, Jno. I. Hobson, J. Sissons, W. McCorkindale, and N. Awrey.

Committee on Sheep.—J. Jackson, Prof. G. E. Day, J. C. Snell, James Tolton, R. McEwen, and James Rowand, M.P. Committee on Swine.—G. B. Hood, R. H. Harding, Wm. Dawson, James Anderson, and D. P. McKinnon.

Committee on Poultry.—James Anderson, Prof. G. E. Day and Wm. Dawson. Programme Committee.—Messrs. Miller, McCorkindale, Sissons, Wade, Jackson, Snell, Brethour, R. Gibson, and Hodson.

The list of sheep judges recommended at the London meeting, a report of which was given in our June 1st issue, was ratified, with the exception of the name of Robert Miller, for which was substituted the name of W. S. Hawkshaw, Glasgow. The swine judges recommended at London meeting were ratified.

CATTLE JUDGES.—Grade.—John Scott, Galt; Wm. Stark, Burwick. Geo. Morris, London, as referee. Pure-bred.—Thos. Russell, Exeter; Alderman Dunn, Toronto. T. E. Robson, Ilderton, referee.

Poultry Judge.—Geo. Murton, Guelph.

Prof. G. E. Day was elected to represent the Ontario Agricultural College as a member of the Board.

It was decided that the date of entry be limited to Nov. 25th, and that entry fees after that date be doubled.

The agreement of last year's amalgamation was again accepted, with the exception that the Guelph Fat Stock Club are now allowed to retain the membership fees of their association. Members of this society will this year receive the full benefit of their dollar membership tickets, admitting them at the gates without further charge.

Rules governing the exhibition are the same as last year, with the following exceptions:—When making entries it will be necessary to give age, as well as record number and name, etc. Pigs and sheep need not be weighed at the show. The show will be held Dec. 10th, 11th and 12th, 1895. Admission will be charged until six o'clock p. m., Dec. 12th. Ages of all animals must be computed to the 1st of December, 1895.

Awarding committees will consist of two judges and a referee for each class or classes. They shall commence examination at 10.30 of the 11th, and continue until the awards are completed.

In the case of any irregularity being practiced by exhibitors, the guilty parties may be expelled for at least two years by the directors, who may withhold all or any part of the prize-money won by them. Admission tickets same as last year, except that ladies will be admitted for ten cents.

#### PRIZE LIST.

Last year's prize list was carefully revised. Best steer, 1 year and under 2, now reads, "Best steer or heifer, 1 year and under 2."

In class 1, special prize, offered by the Dominion Shorthorn Breeders' Association last year, is cancelled, and the following substituted: "\$15 for best registered Shorthorn steer, and \$15 for best registered Shorthorn heifer."

Mr. H. D. Smith, Compton, Que., offered \$50.00 to a pure-bred Hereford, or one having three or more crosses, which succeeds in taking the sweepstakes award. This offer was accepted.

In the sheep division, class 8, sec. 7, "best five sheep under two years old, bred by exhibitor, \$25," is amended to read, "1st, \$15; 2nd, \$10." Classes 9 and 10 similarly amended.

The prizes offered by the American Shropshire Association are the same as last year.

The prizes offered last year by the American Southdown Association are withdrawn this year.

Cooper & Nephew's cup will again be offered on the same terms as last year.

Swine.—It was recommended at the Sheep and Swine Breeders' Association meeting, in London, May 23, that best barrow and sow over 2 and under 18 months be changed to over 9 and under 20 months. This change, however, was not made; it remains as last year.

Tamworths and Duroc Jerseys were divided, allowing Tamworths \$50 in prizes, and Durocs, \$50.

In the case of Mr. Row, the following resolution was passed:—"That Mr. Row be requested to furnish the secretary, Mr. Wade, between now and the 10th of December, proof that prizes won by him and withheld by this Association were