THE AGRICULTURIST

Will be published every

SATURDAY by

ANDREW LIPSETT,

at the

OFFICE ON QUEEN STREET,

Opposite City Hall, F'ton, N. B.

Subscription, - $1.50, in advance.

☞ Should the subscription remain unpaid for 3 months from the time the first paper is sent to the subscriber, the price will be $2.00.

The Agriculturist.

A WEEKLY JOURNAL DEVOTED TO AGRICULTURE, LITERATURE, AND NEWS.

ANDREW LIPSETT, Publisher. "AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH. ANDREW ARCHER, Editor

VOL. 1. FREDERICTON, N. B., OCTOBER 26, 1878. NO. 29.

Agriculture.

PRIZE LIST.

(*Concluded.*)

James McDade, Tin Ware, hand made, 1st.

Alex. McKenzie, Hive of Bees, 1st.

McFarlane, Thompson & Anderson, Plough with steel mountings, 1st; Wood and Iron Plough, 2nd; Steel mounted Plough, 1st; Wood and Iron Harrows, 1st; Iron and Wood Cultivator, 1st; Iron Grubber, 1st; Horse Hoe, double, 1st; Mowing Machine, 1st; Seed Seperator, 1st; Farm Boiler 1st; New Model Buckeye, 2nd; Wood Turning Lathe, 1st; Parlor Stove, 1st; Shafting Hangers, &c., 1st; School Furniture, 2nd.

Walter McFarlane, Horse Pitch Fork, 1st.

George McFarlane, Farm Waggon, 1st; Top Buggy, 2nd; Carriage Wheels, &c., 1st; Market Waggon, 1st.

John McAlpine, Summer Rye, 1st.

James H. McAlpine, Smooth Buckwheat, 2nd; Woolen Socks, 3rd; Ladies' Hose, 2nd.

William McKean, Beans, 1st; Early Rose, 2nd; Danver Onions, 2nd; Red Onions, 1st.

A. McKilligan, Roll Butter, 4th; Knit Drawers, 1st.

D. McCluskey, Flannel, 2nd.

Edward Neve, Cabinet Organ, 1st.

John Neill, Turnip, Purple Top, 2nd; Turnip, Purple Top, 1st.

Allen C. Otty, Ayshire Bull, 1st;
" " Heifer, 2d;
" " 3rd;
" " 3rd; Patent Churn, 1st; Point Lace, 2nd.

T. G. O'Connor, display Tailoring, 1st.

Mrs. O'Malley, Cretone Work, 1st.

Frances C. O'Connor, Worsted Work raised 1st; Bead Work, 2nd.

S. L. Peters, Bull calf, Short Horn 3rd; Short Horn Cow, 2nd; Leicester Ram 3rd; Leicester Ram Lamb, 3rd; Tatting, 1st.

Gideon Phillips, Jersey Bull 3 years, 2nd.

George A. Perley, Spanish Black Fowl, 1st.

Thomas H. Perley, Grade Bull Calf 3rd.

George S. Peters, Yorkshire Sow 1st; Carpet, 1st; Bradley Potatoes, 1st.

Samuel Peabody, Pumpkins, 1st.

Joseph Pritchard, Jr., Jersey Bull, 1 year old, 1st; Jersey Heifer, 3rd; Leghorn White Chicks, 1st; Pekin Ducks, 1st.

Miss Priest, New Kincardine, Woolen Shawl, 2nd.

Captain Powys, Cochin Buff Fowls, 1st.

Samuel Pendleton, Grade Cow, 1st. J. Henry Phair, Water Color Drawing, 1st; Water Color Paintings, 1st.

William Pringle, Crosses and Grades Ram, 3rd; Crosses and Grades Ram Lamb, 1st; Crosses and Grades Ewe Shear 3rd; Crosses and Grades Shearing, 2nd; Crosses and Grades Lamb, 2nd; Pen 5 Ewes, 2nd; White Oats, 2nd; Black Oats, 1st; Barley, 2nd; Rough Buckwheat, 2nd; Timothy, 2nd; Potato Onions, 1st; Roll Butter, 3rd.

Price & Shaw, Double Phæton, 1st; Double Sleigh, 1st; Trotting Sleigh, 1st; Open Waggon, 1st.

W. E. Perley, Percheron Foal, 1st; Chas. A. Perley, Corn Meal, 2nd.

Wm. Parks & Sons, Factory Cotton Goods, 1st; Cotton Warps, 1st.

Rosie A. P. Phillips, Hooked Mat, 3rd.

Miss Helen Paisley, Woolen Quilt, 3rd; Tatting, 2nd; Cone Work, 2nd; Floral Ornament, 1st.

F. J. Purdy, Fancy Flannel, 1st.

Miss M. Perley, Ladies' Woolen Hose, hand, 2nd; Roman Embroidery, 1st; Leather Work, 2nd; Shell Work, 1st; Straw Work, 2nd.

Miss Celice Perley, Crochet, 1st.

S. L. Perley, Crochet, 2nd; Silk Embroidered Work, 2nd; Moss Work, 1st; Shirt, machine, 2nd; Landscape, Oil, 2nd.

J. H. Reid, Stallion, 4 years, 2nd; Grade Cow, 2nd; Cotswold Ram 1st; Berkshire Sow (pure), 2nd; Houdan fowl, 1st.

Miss Lizzie Richey, Crochet Cotton, 2nd; Netting, Darned, 2nd; Scotch Needle, 2nd.

Jas. D. Reid, Carriage Harness, 1st; Trotting Harness, 1st; Horse Boots, 1st.

A. A. Robinson, Matched pair, 2nd.

A. W. Rainsford, Ewe Lamb, 2nd; Mammoth Squash, 1st.

J. DeLancy Robinson, Pen 5 Ewes, 3rd.

Reed & Reed, Brooms, &c., 1st.

Risteen & Co., Blinds, &c., 1st; Doors, Factory, 1st; Sashes, Factory, 1st.

J. W. M. Ruel, Citron Melons, 2nd; Water Melons, 1st; Salsify, 2nd; Scorgonerva, 1st; Summer Cabbage, 2nd; Red Cabbage, 1st; Peppers, 1st; Capsicums, 1st.

Mrs. Rankine, Ladies' Hose, Cotton, hand, 1st.

Mrs. E. F. Randolph, Lacquer Work 1st.

Martha Rossiter, Wool Work, 1st.

G. A. Sterling, Stallion, 1 year, 1st; Leceister Ram, 1st; Crosses and Grades Ram Lamb, 2nd.

G. R. Smith, Mare, 3rd; Yorkshire Sow, 2nd; Yorkshire Sow, 1st; Yorkshire Sow, 2nd.

John Slipp, Short Horn Bull, 3 years, 2nd; Short Horn Bull, 1 years; 2nd; Bull Calf, 2nd; Short Horn Cow, 2nd; Short Horn Heifer, 1st; Short Horn Heifer Calf, 1st; Short Horn Herd, 1st.

Elisha Slipp, Short Horn Bull, 1 year, 3rd; Fat Heifer, 1st.

A. Stevenson, Short Horn Heifer Calf, 3rd.

Ebenezer Smith, Devon Bull, 3 years, 1st; Devon Bull Calf, 1st; Devon Cow, 3 years, 3rd; Devon Cow, 1st; Devon Heifer, 1st and 2nd; Devon Calf, 1st and 2nd; Herd 1st.

Andrew Spence, Cloth, Cotton, 3rd.

Geo. W. Schleyer, Collection Photographs, 1st.

C. J. Smith, Devon Cow, 2nd; Devon Cow, 2nd; Devon Heifer, 1st and 2nd.

Mrs. Chas. Sulis, Illuminated Texts, 2nd.

Joseph Scarr, Grade Cow, 3rd.

B. A. Shaw, Leicester Ram, 2nd; Yorkshire Sow and Boar, 1st; Essex Boar, 2nd; Yorkshire Sow, 2nd.

F. D. Shaw, Cotton not fulled, 3rd.

Robert Stewart, Grade Bull, 1st and 2nd; Grade Heifer 1st and 2nd; Yellow Altringham Turnip, 1st; White Oats, 3rd.

Mrs. Sills, Floral Ornament, 2nd.

J. W. Simmons & Co., Pebble Grain, 1st; Split Leather, 1st; Enamelled, 1st; Patent Leather, 1st; Harness Leather, 1st; Upper Leather, 1st.

Jas. E. Smith, Horse Collars, 1st.

R. S. Sheraton, Hair Mattras, 1st; Flock Mattras, 1st.

Samuel Stephens, Filly, 2nd.

Stimpson Wallace & Co., Cabinet Organ, 2nd.

G. R. Smith, Percheron Colt, 1 year, 3rd; Ewe Lamb, 3rd; Early Horn Carrots, 1st; Butter in Crock, 2nd; Cheese, 1st; Cloth, fulled, 3rd; Cloth 2nd.

A. L. Slipp, Gelding to Carriage, 1st; Pair to Carriage, 2nd.

J. M. Stewart, Ladies' Linnen Hose, 2nd.

S. J. Stubbs, Confectionery, 1st.

W. N. Sterret, Smooth Buckwheat, 1st; Rough Buckwheat, 1st; Squash, 2nd; Sweet Corn, 2nd.

Maggie Scott, Quilt Patchwork, 1st.

Asa Slipp, Christe Potatoes, 1st.

Lister Stockton, Apples, variety, 2nd; Grapes, 2nd; Butter, packed, 2nd.

Franklin Sharp, Flannel, 3rd.

Mrs. Lee Street, Woolen Gloves, 1st.

Miss Smith, Braid Work, 2nd; Machine Embroidery, 1st; Net Embroidery, 1st; Cone Work, 1st; Knit Quilt, 2nd.

C. F. Todd, Filly, 3 years, 1st; Short Horn Cow, 1st; Short Horn Heifer, 3rd; Hereford Bull, 3 years, 1st; Hereford Bull, 1 year, 1st; Hereford Cows, 1st, 2nd and 3rd, Hereford Heifers, 1st, 2nd and 3rd; Calf, 1st and 2nd; Herd, 1st.

G. A. Treadwell, Filly, 2 years, 2d; Filly, 1 year, 1st; Common Corn, 2d; Butter in crock, 2nd; Roll Butter, 2d.

C. C. Tabor, Berkshire Boar (pure), 3rd; Berkshire Sow, 3rd.

Geo. Todd, Iron Plough, 2nd; Side Hill Plough, 1st.

Miss Annie Tucker, Turkish Mat, 2nd; Cretone Work, 2nd.

Mrs. Thos. Torrens, Hearth Rug, 3rd.

Mrs. F. P. Thompson, Oil Painting, 2nd.

S. A. True, Percheron Colt, 1 year, 1st.

G. H. True, Percheron Colt 1 year, 2nd.

Chas. Tracey, Percheron Colt, 2nd.

Mrs. Cornelia Tippet, Crewel Work, 2nd.

Elizabeth Vail, Fancy Knitting, 1st.

J. M. Wiley, Stallion, 2 years, 2nd.

C. A. Wheeler, Mare and Foal, 1st

William Wilson, Black Poland Fowls, 1st; Golden Poland Fowls, 1st; Silver Poland Fowls, 1st; Collection Fancy Pidgeons, 1st; Collection of Fancy Rabbits, 1st.

David Willet, Iron Harrow, 1st.

Geo. Watson, Fanning Mill, 1st.

J. A. Whelpley, Wringing Machine, 1st.

John Wilson, Hard Soap, 1st; Fancy Soap, 1st; Candles 1st.

Henry Wilmot, Summer Wheat, 2nd; Jackson Whites, 1st; Beets, 2d.

Mrs. E. L. Wetmore, Work on Linnen, 2nd.

T. B. Winslow, Early Horn, 1st; Marrow Squash, 1st; Potatoe Onion, 2nd.

Miss L. D. Whitehead, Wax Work, 2nd; Water Drawings, 1st.

Emma Whitelock, Oroginal Oil Portrait, 1st.

Michael Yerxa, Grade Heifer Calf, 3rd.

Adam Young, Register Grate, 1st; Slate Mantle, 1st.

John Young, Cloth for Women's wear, 1st; Woolen Socks, hand, 1st.

CLEAN YOUR POULTRY HOUSES.—Do not let the cold weather come upon you until you have first attended to your autumn cleaning for the hens. Take out and burn all the straw from the nests, and if the latter are very old add them to the bonfire and put up new boxes. Whitewash the house inside, putting carbolic into the slacked lime; give the roots a coat of kerosene oil. In whitewashing the nests, be careful to get the lime into every crack and crevice. Dust the birds with sulphur and carbolic powder, if they are badly troubled. It pays to take care of your poultry. We frequently have letters asking if poultry raising is profitable. It can be made so, but seldom is. We know of one case where sixty hens produce eight eggs per day, and of another where, from ten hens, under the care of a boy of nine, six eggs are gathered daily. Let one of the children assume the care of the poultry yard if you have not the time to make it a feature of your farming. Encourage him by selling him the fowls at a fair price, allowing him to pay for them in eggs, which you buy at the regular price, or which are sold and placed to his account. Get him to keep his own accounts; let him pay for the feed purchased; also by the sale of eggs and chickens. The boy will be happier for the experiment, and will gain habits of industry that will be valuable to him for all his life.—*N. Y. Herald.*

THE GENERAL PRINCIPLES OF CATTLE FEEDING.

Mr. D. E. Salmon, writing to an American contemporary, the *Country Gentleman*, says:—The most important condition of success exists in the animals themselves—it is the activity and training of the cells of which they are composed; and so, just as we have breeds of racehorses that have been trained for generations to run, we have also breeds of cattle that have been trained for generations to store up the constituents of their food in the form of flesh and fat. And just as certain as a racehorse may be injured by improper food, care or training, just as surely will a steer, whether scrub or shorthorn, which has been starved at any period of its life, fail to fatten as profitably as it would if the cell of its body had been regularly exercised by an abundant supply of food from the first day of its life. Again, an animal which has always received an abundant supply of food, will eat and digest more than one that has not; it will probably not digest a large percentage of the nutritive constituents, as has been climed, but the fact that it can eat more and digest the same percentage is an important one. There are, then, two reasons why the precocious breeds of cattle are more profitable than others, viz., by eating and digesting the same amount of food the cells of the body will store up a greater quantity of flesh and fat; and by an increased supply of food they are able to eat and digest more, thus largely adding to the former advantage.

THE NUTRITIVE RATIO.

The next condition that influence the profit of cattle feeding is the composition of the food which is given; it is not alone necessary that this should be in proper quantity, apetizing and digestible—*the constituent elements must be present in proper proportion.* It has been demonstrated by late experiments that the office of the carbhydrates is to protect the fats and albuminoids of the food from destruction, so that the fats may be deposited in the tissues, and that the part of the albuminoids not deposited as such may be converted into fat, and stored away in that form. If, now, the food contains an undue proportion of carbhydrates, the surplus is oxodized in the body without producing any useful effect; if there is too large a proportion of albuminoids, these are destroyed to produce an effect that might be brought about by carbhydrates at one fourth the expense. Again, the albuminoids must be present in proper proportion, or fat is not secreted; if there is too much fat, it will be destroyed instead of the cheaper carbhydrates, and it will also have an unfavorable effect on the albuminoids already deposited; if there is too little fat, the fattening process is again carried on at too great an expense, as too large a proportion of the fat is formed from the costly albuminoids. We have here, then, reasons entirely independendent of the digestibility of food why the nutritive elements should be present in the ration in fixed proportion. This proportion varies somewhat with the period of fattening, but the average quantities per 100 pounds live weight per day may be stated in round numbers, according to our present knowledge, at 2½ to 3 pounds of digestible albuminoids, 15 pounds of carbhydrates, and 0·5 to 0·7 pounds of fat—giving a nutritive proportion varying from 1:5 5 to 1:6·5.

Another important point is the digestibility of the food, which bears a certain relation in many cases to the nutritive ratio—especially is this the case with hay and other kinds of coarse fodder. I have dwelt upon this point in former articles, and now only mention it to keep such an important matter fresh in our minds.

USE OF SALT.

The supply of salt is a matter which assumes extreme importance when animals are on young, luxurient pastures; in such cases, the chemical reaction between the potash, which exists in large quantities in this food, and the salt in the body causes an excretion of large quantities of the latter. Now, a certain amount of salt in the body is necessary not only for the proper activity of the nutritive changes, but also for the health of the individual; and if the salt excreted is not replaced, the deposit of fat is decreased, the animal becomes unthrifty, and finally sick. Too much salt, however, causes thirst, and the drinking of large quantities of water is unfavorable, as I have shown in a previous article; while, therefore, many claim that salt should be given *ad libitum*, it is possible that animals may take more than is profitable in this way.

INFLUENCE OF TEMPERATURE.

It has been shown that 60 degs. is the most favourable for fattening, and either a rise or fall has an unfavourable effect. The increase of temperature probably acts chiefly by the greatly increased quantities of water that are taken and evaporated from the body. As the temperature rises but about 40 degs. above the most favourable point, and sinks twice that many below it, we may have reason for believing that when exposed to the winds and storms of winter, animals will be affected even more unfavourably than when exposed to the sun in summer; still I doubt if the difference is so great between winter and summer as the number of degrees of variation from the normal standard would lead us to believe; and when we remember that people, who are protected when in doors by fires and when out by the extra clothing, usually gain in weight in winter and lose in summer, it seems probable that warm stables would make winter nearly or quite as favourable as any season of the year. It is, then, a real economy to provide pastures with shade trees, or other shelters from the rays of the sun, and even more of an economy to provide warm stables in winter. The present objection to stables is that the cattle bought by the western feeder are too wild to be profitably stabled; but this must become less and less of an objection; the feeder must also breed and raise his cattle—he will then know not only that they are well bred, but that they are well raised, which is scarcely less important.

PRACTICAL CONCLUSIONS.

And, finally, let us not be led from proper practices by those who claim that beef can be made more cheaply at one age, or one season, than at another, there is but one best way, and that it is to feed a full ration from birth till ready for market. Some of our writers appear to forget that if a calf gains two or three times as much from a given quantity of food as any older animal, such gain contains but one half or third as much dry substance; and that if winter is an unfavourable period for fattening, summer is liable to the same objection. The skilful feeder will make his animals as comfortable as possible in both winter and summer. In the former season, he will add enough pea or bean meal, bran, oil-cake, malt sprouts, &c.; to his corn and hay, to make the nutritive ration a proper one; in the latter season, he will give enough corn to supply the deficiency of his pasture grass in carbhydrates and fat, and not forget the extra requirement for salt.

PERCHERONS.

Mr. J. H. Wallace, editor of *Wallace's Monthly*, generally considered a first rate horse authority, made a European tour this summer, has just returned to New York. One of his articles in the October issue is on the Omnibus Horses of Paris, which he had continually heard and read described as all Percherons of fifteen hundred or two thousand pounds weight, all travelling with enormous loads ten or twelve miles an hour, all greys and all entire horses. He says that his judgement rebelled against believing these descriptions of the omnibus horses of Paris, and his own observation justified his incredulity. He found that the average height of the omnibus horses were about half an inch less than sixteen hands, and their average weight by between eleven and twelve hundred pounds, but nearer eleven than twelve hundred, animals having no form or smarteness about them.

The heavy "Percheron" horse he says, such as has been imported largely into the Western States are bred for carts (wagons are seen in France), and that is the use to which he is put, and in which he has no superior.

The following are the conclusions at which Mr. Wallace arrives with regard to the Paris omnibus horse and the Percheron. But though a great horse authority he may be mistaken, it is too early yet to decide on the merits of the colts from Percheron sires, but the lot shown at the Provincial Exhibition seems to be very promising.

First.—The omnibus horses of Paris are the best in the world *for that purpose.* They are plain and unattractive in appearance, but strong and well suited, physically and mentally, to the kind of life to which they are consigned.

Second.—For all ends of drudgery they are remarkably serviceable; but, owing to their lack of form and style, they are not profitable to raise for sale, either in France or this country. It will be observed the price there is very low.

Third.—It would be supreme folly to seek improvement by engrafting this blood upon our own, unless we wish to enhance the capacities for drudgery at the expense of symmetry and beauty.

Fourth.—There is an unmistakable family resemblance between the omnibus horses of eleven hundred and fifty pounds, and the Percheron stallions of sixteen or eighteen hundred pounds, that have been imported into into this country. But the stereotyped statement that these stallions are fair representatives of the omnibus horses is not true.

Fifth.—The Percheron horse is a most valuable acquisition when bred as nature designed him. He has been brought to his present size and formed for the cart, and for that only is he suited. He is needed in our great cities, and when bred on his kind, the progeny will always meet a ready market at good paying prices.

From the first importations of Percheron stallions, we have felt like encouraging them, on their merits, and we still feel that way; but there have been so many palpable misrepresentations as their travelling capacities, and all in order to secure patronage from farmers, who have not the opportunities of informing themselves as to the facts, that we no longer hesitate to pronounce the whole means thus employed as the merest "jockeyism." If bred with a view to preserve the original size and type, it is well; but, if bred indiscriminately upon our small farm mares, the result will be only mischievous.

SORTING APPLES.

Almost every year there is a complaint, more or less general, that apples do not keep well. Farmers who put a great many apples in their cellars in the fall, carry out quite a proportion of decayed ones in the spring. Instead of having a superabundance as they supposed, they find that they have not apples enough for their own use. This is a very unpleasant discovery for a man to make. To prevent some of my readers from making such a one is my object in this article.

One great reason why apples decay is to be found in the fact that they are not sorted with sufficient care. This applies to a vast majority of cases. Only a few out of a thousand growers are careful enough in this respect to secure the very best results. The farmer who wishes to keep apples late into the spring, should divide them into three classes besides those which are fed to cattle or used for cider. The first thing to be done is to pick up every apple which has fallen from the trees. The poor ones should be thrown into a heap for the cattle. The best ones should be put in barrels and marked class two. Then those which remain, being perfect specimens, fresh from the trees, can be safely called first-class, and can be put in the cellar in full faith that they will remain in good condition for a long time.

Of course, I do not claim that this alone will make apples keep late in the spring. Some varieties cannot be kept by any ordinary methods. The time of picking apples, also, has much to do with their keeping qualities. If they stay too long on the trees they will become over ripe and will soon decay. If they are taken from the trees and put into the cellar before going through the sweat, their keeping qualities will be impaired. Then, too, the character of the cellar in which they are placed will have much to do about their keeping. Apples put in a cool, dry, well-ventilated cellar will keep much better than they would if put into a damp, warm and close one. All these things will have an influence. Good assorting will prove a great help, and, if other things are favourable, will cause the apples to keep well; but if everything else is unfavourable it alone will not avail. Without it there is no possibility of any marked success. With its aid success can readily be secured by every one who will attend to gathering his apples at the right time, gather them carefully, and put them in a suitable place.

As many of the apples which have fallen from the trees look as well as those which are picked off, many fruit growers put them in with the picked fruit. But this is a great mistake. Such apples will not keep well. Most of them are too mature. Many of them have been slightly bruised. And the action of the sun upon apples which have been a few days upon the ground, has, in many specimens, commenced a fermentation which will lead to speedy decay. Consequently it is never well to put windfalls with the best apples.—*Dirigo Rural.*

Prof. Arnold says the quality of milk varies with the quality and supply of food. If it is very succulent the water increases in the milk; but the increase of water can not go beyond a certain limit, and 90.5 water, with 9.5 solids, is the extreme limit he has ever met with through succulence and moisture in the food. On the other hand, by the use of food rich in the elements of milk, and other circumstances favorable the extreme limit in the opposite direction has been 81.5 water and 18.5 solids. The former occured in June, with a feed of grass and brewers' grains; the latter in the fall, with after-feed and meal.

FEEDING PUMPKIN SEED.

Ever since we can remember, it has been accepted as an unquestioned fact that a cow would dry up if fed on pumpkins without removing the seeds. We recently read the statement that it would not do under any circumstaces to feed them to hogs without removing the seed. We have been carefully experimenting, and have come to the conclusion that this is one of the superstitions that we ought long since to have outgrown, and henceforth shall class it with the "moon theory." But here are the facts:

We met at the Centennial a dairyman from Elgin, Ill., who was milking sixty cows, and fed pumpkins largely, seeds and all, and found that his cows increased in their milk. Another dairyman who was milking twelve cows, encountered a very dry autumn, and his butter shrank to twenty eight pounds per week. He began feeding his cows a half bushel of pumpkins each, chopped in half barrels, so that they could lick up all the seeds, and in a short time his butter reached fifty pounds per week. Finding his supply of pumpkins so large that winter was likely to catch them, he doubled his feed, and his butter reached sixty pounds per week. There was in the herd one master cow who learned to drive the others away and lick the seed from the bottom of the barrels, and although this effected her kidneys, so that she made a good deal of urine, she gave an enormous mess of milk.

About the first of September of this year, we began feeding pumpkins, seeds and all, to seven cows. Up to that time we were feeding a bushel and a half of bran a day, which was now discontinued. The result was an increase of from two to three gallons a day. We are feeding fourteen mature hogs, from twenty to thirty pumpkins a day, and never had hogs do better. Last year one of our neighbors fed out several tons of pumpkins to his hogs, with gratifying results. Farmers should not accept time honored statements as facts, but should test such questions for themselves. We have grown this year on two and a half acres of our poorest land, forty-two horse loads of pumpkins, and believe them to be worth more for feeding than the corn which we could have grown on the same land. We believe it would pay to devote from one to three acres on every farm to this crop.—*Ohio Farmer.*

USEFUL GRASSES.—Good crops of grass are very desirable to all farmers who depend on dairying or feeding cattle as a specialty, particularly the former, and the best and most desirable grass, in addition to red clover and timothy, is Kentucky blue grass. In order to have the latter in profusion, the ground properly prepared and well manured and sown with wheat about the middle of the ninth month (September), should be sown with timothy at the rate of from four to six quarts of red clover seed per acre. The red clover is the greatest root fertilizer of any of our plants or grasses. What I mean by root fertilizers is the fertility given to the soil from its decaying roots, and it is the most valuable of all crops for the recuperation of the soil, when sown for and properly used for that purpose. It is a biennial plant, and sown as a fertilizer, particularly for any crop, and should be plowed down the second season after being sown. Some farmers in Ohio, use it in this way for wheat, and putting their manure on their orchards. My reason for sowing more timothy than clover is that the following season after the wheat, the clover is apt to smother out much of the timothy, and as the clover is so short-lived much of the ground is liable to be left vacant until the green grass and white clover come in and occupy the vacant places, which they will do in good soil, provided they are not pre-empted by the weeds. The latter grasses may be sown, but in most good soils nature provides them in due season. Although the clover is so short-lived, where it has succeeded well, it has left a great means of fertility in its decaying roots, on which the timothy and other grasses luxuriate, and in consequence produce more beautiful crops. The roots of a well-set acre of clover contain 185 pounds of nitrogen, 240 pounds of lime, 45 of magnesia, 75 pounds of potash, 10 pound of soda, 24 of sulpher and 70 pounds of phosphoric acid, on which the timothy and other grasses are luxuriating. It would require a pretty good article of superphosphate to equal the above amount of ingredients of the same number of pounds.

The finest quality of wool is found upon the spine, from the neck to within six inches of the tail, including one-third of the breadth of the back or saddle. The second quality covers the flanks and extends from the thighs to the shoulders; the third covers the neck and rump, and the fourth lies upon the lower part of the neck and breast, down to the feet, also upon a part of the shoulders and the thighs to the bottom of the hind quarters.

HONEY AND MARKETING IT.

The subject of honey and marketing honey is one that concerns nearly every bee-keeper throughout the land; and very properly, too, because in these, aside from pleasure, rests the just reward of study and labor; for it is fallacy to think, without study and labor in bee-keeping, as in all other pursuits, great results can be accomplished. In marketing honey, two points should never be forgotten—that a good article in an attractive form will always command the highest price, the best reputation, and a steady demand.

We see these facts illustrated every day. The confectioner assorts and classifies his candies and fruits, in fact, arranges everything in his store in the most tempting style to captivate human taste and appetite. The druggist adorns his packages of powder with lithographs of beautiful women; his toilet soaps are put up in delicately perfumed boxes; and thus it is in every branch of human industry—the great aim of the "knowing ones" is to make things look attractive.

At the present time, in large cities particularly, there is more demand for comb honey in small frames and boxes than for extracted. This result is due, in a great measure, to the frauds that were practiced in former years by manufacturers of what was called "strained" honey.

Extracted honey is the purest honey possible, and physicians have often denounced the idea of eating honey and comb also; and when the useless and injurious effects of eating comb generally understood, we shall shrink from eating it as we would from eating glass.

Extracted honey may be eaten at all times with perfect impunity. Our Jewish friends use honey in many of their religious rites, particularly in the Feast of the Passover, and so strict are they in regard to its purity, that the price to be paid is no object—the rabbis instruct them to buy candied honey as a more complete precautionary measure against its impurity.

And when we consider that pure honey is the very essence of flowers and plants, in which we are told there is a remedy for every disease, surely we cannot doubt the happy combination of honey and medicine. The Scripture tells us, in many passages, of the wonderful efficacy of honey as food and medicine. And I believe, as the treatment of disease becomes more and more rational, so will the value of honey as a medicine become more and more apparent. Honey has been looked upon as a luxury. The price has been considered high; the consequence is that fashionable golden syrups have been filling the place that honey ought to occupy, and which honey is now fast superseding as the injurious effect of these syrups become more generally known. We have often wondered what have discolored our teeth after eating certain syrups and drinking tea. Can we doubt but that it was the chemical action of the acids used in the manufacture of these syrups? How often it has been proved by analysis that these syrups are adulterated with injurious chemicals. In order to give them that bright color so inviting to look at—while pure extracted honey is as free from all impurity as the dewdrops of morning, and I believe the time is not far distant when the use of honey in every home will become as common as "household words."—*Essay read before the Blue Grass Beekeepers' Association, by Wm. Williamson.*

PROFIT IN HIRING HELP.

Towards the close of the working season, if bad weather for crops and low prices have made farming unprofitable, the almost universal tendency among farmers is to attribute the failure to their hired help. "We hire too much labor." "It costs more than we can afford to pay hired men." In a certain sense this is true. It is only when it costs too much to produce anything that people suffer from hard times. Cheap production must ever be the aim of those who would produce profitably. To lessen the cost of any article is the only practicable mode of increasing profits. It is not possible for farmers more than anybody else, to fix the price at which they will sell. That must be done by those who can produce, and therefore sell most cheaply. But there are very few who cannot devise means to lessen the cost of production.

It must not be inferred from this that hiring less labor is the only, or even the best means of decreasing cost. Very often it is no means at all. In a great majority of cases, the labor which the farmer himself does is the dearest labor that he gets. No farmer will reckon his own labor at less then his family expenses, and if we count these up, they will come to twice or thrice the wages of a hired employe. The farmer's labor ought to be more productive than that of his hired help. But if he leaves his farm so short handed that he is forced to do the work which any one else could do equally well, this advantage is lost. The farmer who digs potatoes or husks corn may be a man of such exceptional strength or skill as to do more than an average day's work even here, but the chances are that he is not. In either he is doing work that can be done nearly or quite as well by others, while if he is a really good farmer, his work at something else, or in supervising and directing the labors of others, ought to be worth double or treble ordinary day or month wages.

If farmers would look over last season's work, they will invariably see that a lack of a little labor at the right time has entailed a loss of five to twenty times what such labor would have cost. It is all right for farmers to study economy' They need to do so; but neglect to hire help when it is needed is not economy, but the most wasteful extravagance. This is bad enough at any time, but especially during the business depression of the last few years, when the country needed every stimulus to profitable production. It is almost a crime, and it is a grevious sin for a farmer to let good land go idle, or only half productive, at such a time as this. Such neglect is a treble wrong—first, to the man himself and his family; secondly, to the country which relies on the best efforts of every man and woman to restore prosperity, and last, but by no means least, it is wrong to the thousands of unemployed who would gladly work, and whom it is every man's duty to employ whenever there is opportunity to make their work remunerative.—*Country Gentleman.*

SOW CLEAN SEED.—Were the seeds of our common weeds as large as pumpkin seeds, there would probably be less ignorance manifested concerning the origin of weeds in our gardens and cultivated fields. Many people who are considered men of good, sound judgment in ordinary matters, really believe that weeds spring up from the ground without having been planted by the parent weed; that weeds grow without seeds. Well, perhaps they did once, for it is still an open question, which is the first, the plant or the seed, the hen or the egg? but at present, we have no reason to believe that a field that is entirely free from weed seeds will grow weeds until the seeds are in some way planted there. The fact is, we are too careless in our habits of observation. We look at the outside of things, or at least, on but one side, but we fail to look at a subject in all its details. We sow wheat and chess seed from the same measure, and yet as the wheat is the larger, we look at that only, leaving the chess unnoticed. So we scatter millions of seeds of the wild turnip with our oats and barley, but do not notice it till the yellow blossoms appear in the field. With the excellent machines now made for cleaning grain there should be no excuse for sowing any other seeds than those we wish should grow. It will often pay to clean a small quantity of grain at considerable expense, for the sake of having something fit to raise seed from. Some of our best farmers grow a small patch of potatoes, or corn, wheat, or other grain, expressly for next year's planting, and in this way improve their varieties from year to year, and the practice may be highly recommended.

HOW TO CHOOSE A HORSE.—An English paper tells us that the purchasers of horses for the French army always endeavor to obtain a first look at the animal when he is in the stable, noting if the animal supports himself equally well on all his legs, and if one seems to yield, especially examining it. Attention is then directed to the largeness of the pupil of the eye, which ought to be more dilated when in the stable than when exposed to light. After the animal has been led out of the stable, the eye ought to be again examined to see if the pupil has been contracted; if not, the sight is feeble. Others, to test the power of vision, feign to strike the forehead with the hand. If the hollow over the eye be profound. Wounds about the temple suggest the attack of staggers; and when the end of the nose presents circular scars, it may be concluded the horse has been twitched with a cord to insure his quietness while being shod or having had to submit to some painful operation.

Apples are so plentiful in New Hampshire and prices so low that farmers cannot afford to pay for help to pick them, though the fruit is of unusually good quality. Barrels, on the contrary, are in such demand that when some thieves entered the barn of Charles Dow of South Seabrook the other night they emptied the apples upon the barn floor and carried off the barrels merely.