WOOD ASHES.

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ENQUIRER, Wentworth County, Ont.:—"What would be the most profitable use I could make of rood ashes?"

[As the quantity of wood ashes made on the verage farm is generally quite limited, probably he best use that can be made of them is to apply hem to the fruit trees and berry bushes in the rehard and garden, as the large proportion of totash they contain has a decidedly beneficial effect in heightening the color or blush on the fruit, as well as preventing, to some extent, scab or fungous rowth, and destroying insect life. If you have shes in sufficient quantity they can be used to reat advantage applied to corn, potatoes, turnips and mangels, all of which are feeders on potash and cannot flourish in soil devoid of it.]

BUTTER YIELD FOR BUTTER-FAT.

BUTTER YIELD FOR BUTTER-FAT

"Subscriber," Perth Co., Ont.: — "My four-year-old Ayrshire cow, two months in milk, is now giving 521 pounds of milk per day, testing 3.85 per cent, fat by the Babcock test. First, What amount of butter should I get from her milk per week? and second, What is the rule for estimating butter yield from fat percentage? Any answer to these questions through the Advocate will not only oblige me, but will doubtless be of interest to your readers."

your readers."

[The plan adopted at the O. A. C. dairy for calculating the butter yield from the butter-fat in the milk is to add ten per cent. to the fat. This we find makes allowance for some loss of fat in the skim milk and buttermilk, and for loss of cream and butter while handling. If it were possible to make butter without any loss of fat in the operation, then we ought to make an increase of about 19 per cent. Goodaverage butter contains about 84 per cent. of fat and 16 per cent of water, salt, curdy matter, etc. In creamery practice the increase of butter over butter-fat is probably about 15 per cent.; i.e., for every 100 pounds of fat delivered in the milk 115 pounds of butter are made. Taking these examples for our basis this Ayrshire cow would produce as follows:

21 lbs. milk per day would be 3671 lbs. for one week.

171 lbs. milk testing 3.85% fat would be 14.14 lbs. fat.

4.14 lbs. fat with 10% increase would be 151 lbs. butter in 1 week

4.14 " " " 19% " " 161 " " " " 14.14 " " " 19%

H. H. DEAN, Dairy Dept.

PEAS AND CORN FOR FATTENING CATTLE.

J. W., Perth Co., asks:—" Which is the cheaper food for fattening cattle, corn at 28c. per bushel of 56 pounds, or peas at 39c. per bushel of 60 pounds?"

[Though no experiments comparing these fodders have as yet been made at this station, it is a fairly safe conclusion that both these fodders offer excellent value at the prices quoted, and that peas are rather better value than corn at the prices named. However, pea meal is better to be mixed with some other grain in order to obtain the best results, and since pea meal is rich in those substances which corn lacks, the two grains are particularly well suited for mixing, and will give better results mixed than when fed separately. A mixture of one-third corn meal and two-thirds pea meal should prove a very cheap and satisfactory ration. prove a very cheap and satisfactory ration.

G. E. DAY, Agriculturist.
Ontario Agricultural College.

NOTE.—In our experience we have found it advisable to mix bran or oats, or both, with such a heavy grain ration as peas and corn, being safer and also economical at present low prices of the two former. We would prefer a mixture of say one-third

bran to two-thirds of peas, corn, and oats.—EDITOR.] HONEY LOCUST SEED.

DAVID BAINARD, Elgin Co., Ont.:—"Can you tell me in your next number where I can get the honey locust seed for hedge plants? How much per pound? Is it difficult to get it to grow, or in what way is the seed started?"

[Seed can be obtained from any leading seedsman, and is catalogued at about 50 cents per pound. It is very difficult to germinate. The seed is first placed in a vessel and water just boiling is poured over it and allowed to stand fifteen or twenty minutes, then drain off, cover with cool water, and allow to stand over night. Most of the water, and allow to stand over night. Most of the seeds will be found swollen and soft. Remove these and treat any hard ones left again similarly, but keep them a shorter time in the hot water. This is done immediately before planting in May.]

SMART AND RAG WEED AND MOTHS. SUBSCRIBER, Norfolk Co., Ont .: "1. Please let me know in the next issue of the ADVOCATE a remedy for destroying smartweed. I have a field rather low which was in timothy sod several years. I then plowed it and sowed with peas; the following fall sowed with wheat and seeded with timothy. The next harvest after the wheat was taken off about three acres of the lowest part of field came up thick with smartweed, so that you could not see any timothy. This weed has been very bad in this field with every crop of grain for three years, but did not appear before in the hay.

"2. What is the best method of destroying rag-weed in an orchard? The land is a rich loam, and

the weed grows to a terrible size.
"3. What is the best time to plant sugar beets and turnips, and what kind of soil is best adapted for them? Which do you think the best feed for stock, sugar beets, turnips or mangels?

"4. Our house is terribly infested with moths.

We have tried moth-balls, black and Cayenne pep-

per, and carbolic acid. They seem to be the worst in the stairs and in rooms we do not use often, and very bad in the clothes room. They do not seem to bother carpets, but are in clothing and trunks and valises. We have cleaned them thoroughly, and put cotton articles in them, and would open them in a few months and find them filled with moths. I send you a few of the moths for you to examine. Please tell me the cause of them, and also a remedy for destroying them. Do you think airing the room thoroughly would make any difference. They will live right among pepper and moth camphor, as I have thoroughly tried it. We have also found them this winter in the cutter, where they had eaten the cushions."

cushions."

[1. There is no "royal road" to killing weeds. Thorough cultivation is the only plan. For smartweed I would recommend thorough draining, and the growing of hoed crops as frequently as possible. Roots, corn, or any hoed crop, carefully looked after and kept clean, will be found effective in checking the growth of this pest. If roots have been grown, do not plow the ground after harvesting the roots, and the following spring loosen surface with a cultivator and sow with barley, seeding the barley heavily with clover. After removing one crop of clover, break up and follow with another hoed crop.

2. The remarks above also apply to ragweed. If grain crops are grown, give thorough shallow cultivation immediately after harvest. If required to "seed down" a field infested with weeds, do not plow before sowing grain and grass seeds. By

to "seed down" a field infested with weeds, an not plow before sowing grain and grass seeds. By growing a carefully cultivated root crop, the seeds in the surface layer can be killed, but if the field is plowed before the next crop is sown, fresh seeds will be brought to the surface and will go on growing in the grain. The observance of this principle will be found helpful in fighting almost any weed, specially those propagated from seeds such as especially those propagated from seeds, such as mustard, ragweed, etc.

3. Sow sugar beets as early as possible in the spring. The time of sowing turnips varies in different localities, but its limits seldom extend beyond the first two weeks of June. About the 10th of June is a fairly safe time for most localities. The best soil for system beets in search learn though June is a fairly safe time for most localities. The best soil for sugar beets is a sandy loam, though they will grow fairly well on almost any fertile soil except stiff clays. Deep cultivation is essential. Turnips, also, may be grown on almost any good soil, the least favorable being stiff clay. Sugar beets have the highest feeding value of the three kinds of roots mentioned, but they do not yield so much per acre as turnips or mangels. Turnips come next in feeding value and yield. Mangels give a heavy yield, and for dairy stock are preferred by many, owing to less danger of tainting the milk than in the case of turnips. Sugar beets are good roots for hogs, and they will keep until late into the summer.

G. E. DAY. G. E. DAY. the summer.

4. The entomological specimens sent are the cocoons or cases of the larva (young) of the common clothes moth (Tinea pellionella). The insect is a small grayish-yellow moth, measuring about one-half inch across the wings. It lays its eggs in the folds of cloth, among furs, etc., and from these hatch soft, white-bodied larve, each making a case (the shape of a hollow roll) for itself. The larve (the shape of a hollow roll) for itself. The larva feeds in woollen clothes, furs, haircloth, carpets, etc., from which it weaves its case, and in due time develops into a moth. Articles in daily use, and rooms frequently aired and swept, are not apt to be seriously affected. Beating, shaking or brushing, and exposure to air and sunshine are good remedies. Tobacco, camphor, moth-balls, cedar chips, etc., have a tendency to repel this insect, if the materials are not already stocked with eggs or larvæ. They are not likely to deposit eggs near where such odors prevail. When putting away furs, etc., after beating and exposed to sunlight, they should be enclosed in hower maner have sets into which the insects in boxes, paper bags, etc., into which the insects cannot get to deposit their eggs. If moth-balls, etc., are put in the boxes, they will aid in repelling the insects. Care should be taken that the articles are not infested before being put in. If the boxes are lined with tar paper it will improve them. Clothcovered furniture and cloth-lined carriages may be sprayed with benzine about April, June, and August. It must be remembered that this is very in flammable and fire should not be near when it is used. A solution of corrosive sublimate in alcohol may be applied with a sponge and prove very successful. This compound is very poisonous and must be carefully used. Wherever benzine can be applied it is good for getting rid of this pest, as it kills the insects and destroys the eggs. J. HOYES PANTON.

Ontario Agricultural College.] MODEL HOG HOUSE—EARLY PASTURE—HAY CAPS-

PUMPKINS AND FLAX. ENQUIRER, York Co., Ont :- "1. I want to sow some kind of crop for early pasture till July. One field for hogs and another for a bull. What shall

"2 Please give me plans for building a model hog house (stone), having stone and lime on the place, say to hold 100 hogs?

"3. Can you tell me what kind of material to use for caps to cover hay in the field, also how to

"4. What is the right quantity of flax seed to sow per acre, also best time, and how to cultivate?
"5. Can a field of ensilage corn be cultivated to advantage with pumpkins and squash planted through it, or would it be better to have a piece separate for them? How close would you plant them, and how cultivate?"

[1. A mixture of oats and vetches, or oats, wheat and peas, would probably answer the pur-pose as well as anything we could suggest. We would not recommend stone walls for a

2. We would not recommend stone walls for a hog house. They draw dampness and frost, and are not conducive to health or comfort, and young pigs will not thrive satisfactorily in such a building. If lined with studding and boards on the inside this objection can be overcome, but we would prefer a stone foundation to one foot above ground, and a frame structure, double boarded inside, with felt paper between, and boarded and battened outside. This is both dry and warm. Concrete makes the best floor, and is all right where bedding is plentiful, but if scarce we would advise temporary board flooring on top of this in advise temporary board flooring on top of this in part of pens for sleeping quarters. It is claimed that concrete walls are much drier than stone masonry. If this is correct there may be economy in building with concrete, as the bulk of material is inexpensive and if the work is well done it will be in building with concrete, as the build in material is inexpensive, and if the work is well done it will be substantial and lasting. Our ideal hog pen is a building 24 to 30 feet wide, with two rows of pens; a feeding passage 4 to 6 feet wide in the center, lengthwise, and feed and boiler house at one end. Pens should be 10 x 12 or 12 x 12, to accommodate five or six hogs in each with outside window and five or six hogs in each, with outside window and five or six hogs in each, with outside window and door to each pen opening to a roomy yard; also a slide door between pens, and a door from each pen to feed passage to facilitate changing from one pen to another and loading for shipping at one end of passage, where a chute may be built to level of wagon bottom for convenience in loading. Such a building can be extended in length to suit the requirements, and if it is desired to store straw for bedding overhead, may be raised to the required height, and a "lean to" at one end may serve for feed room. A somewhat elaborate plan of piggery and poultry house was given in our issue of March 16th, 1896, page 118, in which the pigs go upstairs to sleep. A device for ventilating the building was

also given.
3. Mr. Everett, of Wisconsin, at the Western Dairymen's convention for 1891, is reported as recommending a cheap and simple style of hay caps made of cotton, which he claims answers the purpose as well as canvass. "The web 1½ yards, purpose as well as canvass. "The web 1½ yards, and we tear it up in squares. We use ordinary cobble stones of about four ounces, one in each corner of the cloth. We tie the pebble into a piece of the cloth not as large as an ordinary handker-chief, using a hemp twine to tie it in, leaving an end of the twine of about six inches. Then we tie the cloth containing the pebble to the corner of the hay cap. This lets the pebble hang down about three or four inches from the cap as it rests on the hay." From 200 to 400 of these caps he found suffihay." From 200 to 400 of these caps he found suffi-

hay." From 200 to 400 or these caps he round sum-cient for ordinary use. "

4. Sow 30 to 40 pounds of flax seed, according to richness and condition of soil. On land plowed and manured in the fall, shallow cultivation in spring with cultivator or disk harrow, and made fine with roller and harrow, is recommended. Sow broadcast with grass seeder on drill, harrow lightly, and roll to make surface smooth. If spring plowed the seed bed must be made fine, and short manure may be worked in near the surface.

5. No. Pumpkins may be raised successfully in connection with potatoes, or on separate land, but corn shades the ground too much, and the vines would be injured in cultivation. The preparation of land may be the same as for potatoes, and cultivation much the same. Keeping down weeds is the principal point.

ENGLISH WALNUT-RUSSIAN MULBERRY.

J. D., McDonald's Corners, Ont.: — "1. How may bud sticks and scions be shipped?

"2. Is English walnut hardy?"
"3. Has Russian mulberry any value as a fruit?" Bud sticks of the cherry, apple, and other large fruits may be sent any reasonable distance by mail with safety, if they are packed in slightly dampened moss and well wrapped with bleet paper. The sticks should be cut from the best grown twigs of the current season's growth on trees which bear well-matured and well-ripened buds. The leaves overlying the buds should be cut off as soon as the sticks are taken from the tree. The sticks or scions should be carefully labelled, and when wrapped in the manner indicated may be

forwarded long distances with perfect safety. 2. English walnut will not succeed in any portion of the country where peaches cannot be grown without extra winter protection. In Essex County, in the vicinity of Hamilton, and at Niagara-on-the Lake, English walnut does fairly well. Black and Japanese walnuts are very much hardier, and will Succeed in most of the apple-growing sections of Canada. They are valuable both for wood and fruit. If the nuts are planted in a cool, deep and somewhat damp soil, and the trees allowed to stand where the nuts are placed, they grow with remarkable rapidity, and form timber trees in a comparatively short time. This remark, however, applies more particularly to the black walnut than to the Japanese, as the latter species is grown specially for its nut-producing qualities. As fruited at Ottawa it does not seem to be particularly promising for this purpose.

3. The Russian mulberry was imported from South Russia by the Mennonites of Nebraska, Kansas, and some of the Western States. The seed was brought over by them, and the mulberry has been largely propagated in this way, consequently it varies very much. It is the hardiest form of the mulberry in existence, and will stand a tempo nary for sometim always one of during abunda

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