PREPARE THE BEES FOR WINTER

The natural sources of nectar are practically at an end for this year. What the bees put in storage from now on you must give them. To winter a colony successfully, see that they have plenty of food in the hive before putting them away for winter. Weigh each hive; a ten-frame Langstroth hive-body with bottom board, inner cover and bees will weigh approximately 20 pounds. See that the scale weight reads 70 pounds or more, the added 50 pounds being the required food supply, without which the bees cannot live.

If the hives are not up to the required weight now, it is advisable to make preparations for feeding at once. To feed sugar syrup for winter, inverted ten pound honey pails with fine perforations in the covers are the best feeders to use. If these are not available, however, Mason fruit jars with screw tops and two thicknesses of cheese-cloth used in place of the solid top will answer the purpose. These feeders are placed inside an empty hive-body and are inverted directly on top of the brood frames with a bag or quilt over the feeders to retain the heat while they are on the colony. The feeding is best done in the evening and the entrance of the colony should be reduced by at least one-half. The best time to feed is any time after October 15th. A good colony will take down 30 to 40 pounds of syrup in one night, if so much is needed, to make the honey and fill the combs.

The syrup is best made by using white granulated sugar, two parts of sugar to one of water, by measure or weight. If those proportions are fairly exact and every granule of sugar thoroughly dissolved by placing the vessel in hot water and constantly stirring, there will be little granulation of the syrup afterwards.

With 50 pounds of honey in the hive, the colony will be in good shape in so far as food is concerned, until May of next year.

If your colonies have too few bees or have old failing queens, practice the following management this autumn. Unite all colonies which, when examined on a cool morning, do not cover more than two frames on both sides. The simplest and best plan to unite is to place one brood chamber directly on another, with a single sheet of newspaper between. Leave this way for one week and then shake all bees into one brood chamber. The two queens will fight and the stronger one invariably survives, so no notice need be taken of the queen when uniting.

Do not unite colonies if American Foulbrood is present.

Strong colonies, an abundance of stores, and good winter protection are the three big factors that will make for success in gathering the nectar of 1927.—Ontario Agricultural College.

I Tan My Own Hides.

Calfskins, I find, make the best all-around leather for lacing and other odds-and-ends patching. I tan them by the salt-acid method.

You soak the skin until it is freed from all flesh and grease. (I got the best results by alternately soaking and fleshing.) After the flesh and grease has been removed soak the skin in a preparation of wood ashes and water or slaked lime and water. To make the hair slip the skin must be left in this preparation from one to three weeks, depending on the weather. In warmer weather it takes less time.

When the hair can be rubbed off easily and a thin, cheesy layer is removed with the hair, then the skin is ready for graining. To grain, or remove hair, I place the skin over a wide flat board and scrape it with the back of a knife. A corn knife will do nicely. If all the fine hairs do not come off soak again until they do When all the hair is removed, as well as flesh and grease, wash in strong soapsuds, then scrape both sides until the skin is clean and free from dirt, hair, flesh and grease. Now the skin is ready for tanning.

To make the salt-acid solution, dissolve one pound of common salt in one gallon of water. Then pour one-half ounce of concentrated sulphuric acid slowly into this, stirring all the while. When this solution has cooled submerge the skin in this so that it is completely covered and leave it for about thirty-six hours, depending on the thickness of the skin. To determine whether the skin is tanned or not cut off a small piece. If it has a stringy, tanned look it is ready to be removed.

When the skin is tanned rinse well in clean water. Then work it for about ten minutes in a solution made by using one ounce of powdered borax to the gallon of water. Remove and squeeze (do not wring) the water out of the skin and place it over the board again and scrape with the back of a knife; this removes most of the water. Apply a thin coating of butter, neat's-foot oil or any other animal oil to the flesh side and hang out to dry. When nearly dry work the skin over the back of a round-backed chair. In order to get a soft, pliable skin as a finished product it must be worked while it is drying and not after it is dry. If the skin is not soft enough when dry it must be evenly dampened again and worked over. To remove any remaining grease give it a hasty bath in gasoline.

If the above directions are followed a very serviceable leather will be the result.

Tuberculosis Safeguards.

When the herd is brought into winter quarters, if there is any tuberculosis present it undoubtedly will increase during the winter. This is because of the close contact of the cattle. A tuberculosis test should be made at this time and all reactors eliminated.

At this time the chickens should be carefully examined and some tests made for tuberculosis among them. If any considerable amount is found, the entire flock should be disposed of. It is almost impossible to keep the chickens from mingling with the cows. Since it is easy to replace a flock of chickens, and so difficult to replace a good herd of cattle, this is a wise precaution.

The dairy barn should be thoroughly cleaned and disinfected after the cattle are tested. If milk from an unknown source, or milk that has been mixed with unknown milk in separating, is fed to the calves, it should be heated to 145 deg. F. and held at this temperature for thirty minutes.

Only tuberculin-tested cattle should be bought, and they should be kept entirely away from the herd for from thirty to sixty days, and a retest made.

If these precautions are taken, tuberculosis will cease to be a disturbing factor on your farm.—C. M. L.

Vacuum-Cleaned Cows.

There is nothing which strikes the visitors to our dairy barns quite as quickly as the beautiful white fluffy tails of the cows. That and the immaculate grooming of the whole cow. Of course we are producing milk at a fancy price where absolute cleanliness is essential.

In the first place, we do not wash the whole cow. We did at first, turning the hose on Bossy daily; but eventually we came to the conclusion that this was not conducive to good skin health, and that it subjected the cow to severe exposure in winter. For some years we have been doing dry cleaning from the hips forward.

In the morning, before milking, the herdsmen go over the whole herd with a brush, washing only those cows which have accidentally gotten themselves dirty. After milking, the cows are washed from the flanks back, care being taken to remove all traces of manure. Warm water, soap chips and a common scrubbing brush do the business. The tails are washed with soapy water and then curried out with a combination of bristle and wire brush. The back and body of the cow are rubbed up well with a fairly stiff wire brush and the loose matter removed by a softer, wide bristle brush.

In the afternoon the cows are merely dusted off, unless some manure has become attached. We are now trying out a vacuum cleaner to follow up the brushing and are well pleased with the result.

By using bedding to excess it is possible to reduce the work of cleaning, but the cost of herd maintenance rises. Cut straw, baled shavings, anything short, are better bedding than long straw which the cows sweep out into the gutter too easily. The careful man will be liberal with bedding, but will watch to prevent unused material being sent to the manure pit. The gutters are cleaned out at least twice a day.

Brood-Sow Ration.

Sows should be kept adding slight weight all through gestation, and there are any number of rations that will suit them and will bring good results. Cost of these feeds will cut a figure, as the aim of all pork producers must be to get production of litters and production of pounds on those litters at the very lowest cost.

A pound and a half of shelled corn, half a pound of ground barley or oats and half a pound or more of skim milk or buttermilk is suggested. This is based on 100 pounds of live weight of the animals. Shelled corn, ground barley and alfalfa hay will be as good and in most sections about as cheap as you can use. Fifty per cent. ground corn, 50 per cent. ground oats, alfalfa hay and skim milk makes a good ration for these expectant mothers. If brood sows put on from a pound to a pound and a quarter each day during gestation the coming litter will be stronger and more apt to survive the trials of young pighood.

Wheat and Rye.

"Scakly says half his diet consists of wheat."

"Then the other half consists of rye."

SMART COAT FOR GIRLS.

Sturdy, durable and correct, with a free and easy smartness. Nutria fur makes the collar of this double-breasted straight-line coat, fashioned of cinnamon-brown chinchilla and lined throughout with flannel. Deep cuffs of the cloth trim the plain sleeves, and patch pockets proclaim their usefulness on cool days. The diagram pictures the simple design of the partly finished coat, No. 1215, which is in sizes 4, 6, 8, 10 and 12 years. Size 8 years requires 2½ yards of 36-inch, or 1¾ yards of 54-inch material. The lining requires the same amount of material as the coat. Price 20 cents.

You will be surprised to see how quickly the garments shown in our new Fashion Book may be made by the home dressmaker. No expense has been spared to make our styles as represented in our patterns, the very best that can be produced by the most competent designers and cutters. These designers originate their patterns in the very heart of the style centres, so that their creations are those of tested popularity brought within the means of the average woman. Price of the book 10c the copy.

HOW TO ORDER PATTERNS.

Write your name and address plainly, giving number and size of such patterns as you want. Enclose 20c in stamps or coin (coin preferred; wrap it carefully) for each number and address your order to Pattern Dept., Wilson Publishing Co., 73 West Adelaide St., Toronto. Patterns sent by return mail.

Why the Corn Pops.

BY JULIA W. WOLFE.

It was one of those cold autumn evenings when one likes to sit around a big blazing fire. And it surely was cozy with a cheerful blaze burning and lighting up a group of happy faces. The wind surging through the trees outside made it seem all the more cozy inside.

Christine was popping corn over a bed of red cinders that lay in front of the logs. How good it looked as she emptied the snowflakes into a big bowl, stirred in some butter and some salt and passed it around to the other children and their father.

"What makes corn pop, Father?" asked Robert, as he watched Christine put in the popper enough hard yellow kernels to cover the bottom of the popper.

"Well, Robert, that is a very good question!" said his father, helping himself to a generous supply of the corn. "I will try my best to tell you, or rather, to give you a slight notion of what happens when corn pops. First, I want you all to watch the popper closely, and see if you can see anything unusual."

"Why, I see something," said Christine, slowly, after a while.

"What do you see, Christine "

"Well, it looked like a puff of white smoke rising from the popper, Father."

"Good! Splendid, Christine! But what you saw was not smoke. It was vapor rising from the corn; moisture which comes from the inside of the kernel when it is exposed to extreme heat. The popper full of popped corn is lighter than it was before popping. The vapor or steam which you saw escape took with it this difference in weight."

"But why doesn't the kernel blow all to pieces then?" asked Robert, still puzzled. "I do not see why there should be anything left of the kernel at all when it explodes like that."

"That is another good question," said Father White, "and I will try to tell you the reason why."

He cut a thin slice from a kernel and got a hand-lens for the children to look through at the sliced kernel. Then he continued:

"Can you see the little sections with boundaries distinctly marked between them These are sacks or bags called cells. Each cell contains thousands of minute grains packed tightly together with granules of starch. This tight packing is what makes the grain of corn so very hard.

"Well, when the kernel bursts, these little granules are blown up into tiny balloons. The steam goes tearing its way out to the air, splitting and ripping everything round it. As the heat increases the moisture softens the particles, the starch expands in every direction. Then as it gets hotter and hotter the kernel becomes brittle. So there's your white, puffy mass instead of your hard, heavy kernel."

Father and the children talked and ate pop-corn till it was almost dark. And now we know why the corn pops.

Cleaning the Curtains.

Most housewives might profitably follow the methods of the cleaner when washing their white lace curtains.

In the so-called wet-cleaning process, the curtains are soaked overnight in cold water in a metal-free wooden tub. The next morning they are rinsed thoroughly in warm water.

A gentle fifteen-minute washing in hot, soft water—to which has been added enough high-grade soap to make a sudsy bath—follows the overnight soaking. Several warm-water rinses are made, until all evidence of soap disappears. Boiling is never resorted to unless proved necessary, and then for only a five-minute period. Bluing is added to the last rinse.

Only a moderate starching is given the materials.

The cleaner does not use a wringer in either wet or dry cleaning. Instead, an extractor—a high-speed, revolving bowl—whips all excess solvent out of the garments by centrifugal force.

Unless she has a wringerless washing machine, the housewife, will have to resort to her hands for the next step. Squeeze the fabric gently so as not to injure the delicate lace.

Gather the curtains into a tablecloth and hang, baglike, from the clothesline. A gentle tossing on a breezy, warm day will soon leave the curtains in a damp enough condition to stretch.

This treatment gives us spotless curtains.—K. C.

Fire destroys young growth and burns the humus which acts as a fertilizer.

ROOMY ACCOMMODATION WITH THRIFTY CONSTRUCTION

By Richards and Abra, Architects.

This is a splendid design for a home of moderate size. Pleasing appearance and roomy accommodation are combined with thrifty construction which is really a modest way of suggesting proximity to maximum value for minimum cost. Though this may seem rather a superlative endorsation it is thoroughly vindicated by the fact that similar plans, incorporating the same general principles, have become a popular standard with many architects and builders.

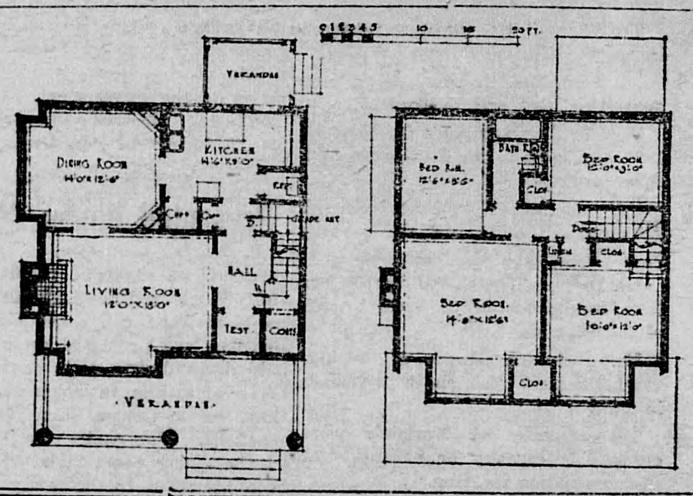
The perspective shows that exterior attractiveness has been very carefully considered. The entrance door harmonizes in architectural detail with the casement windows and the dormer which provides the light for the front bedrooms has been carried out in delightfully good, not grotesque, taste. The side view is featured by a bay window and well proportioned chimney.

Looking at the floor plans and beginning downstairs at the front entrance, the small vestibule is a valuable asset in winter. It is really a partial and non-mechanical means of temperature control.

The living room is 12 ft. x 18 ft. and has a fireplace with tile hearth and an inviting recess created by the bay window. There is also an effective window treatment at either side of the fireplace, shown in th perspective but not the floor plan. In the dining room there is another bay window and two built in corner china closets. The kitchen is well supplied with conveniently arranged cupboard space and has a built in refrigerator for outside icing. Taking into consideration the grade entrance this floor plan is very commendable and will be found particularly desirable from a woman's point of view.

With regard to construction, the square plan 28 ft. x 30 ft. exclusive of the verandahs is an important consideration from the viewpoint of economy. The foundation is of concrete with the upper walls a pebble dash stucco finish applied on metal lath. Hardwood floors and stairs; good plumbing fixtures and hot air heating are included for a cost of from $6,500 to $7,000.

Readers desiring further information regarding the plans and specifications of this house should communicate with the architect direct. Address Messrs. Richards and Abra, 126 Sparks St., Ottawa, Ont.



"THE PROOF OF THE PUDDING"

BAKED INDIAN PUDDING.

One quart of milk, 4 eggs, 5 large teaspoonfuls of Indian meal, nutmeg and sugar to taste.

Boil the milk and scald meal in it, then let it cool before adding the eggs. Bake three-quarters of an hour.

APPLE SAGO PUDDING.

One cupful of sago and water enough to swell it (about 6 cupfuls). Put it on the stove and let the sago swell. In the meantime stew 10 or 12 apples. Mix with the swelled sago and bake three-quarters of an hour. Eat with cream sauce.

WEDDING CAKE PUDDING.

Four cupfuls of butter, 1 cupful of molasses, 2 cupfuls of milk; 2 teaspoonfuls of soda; 4 eggs; 2 pounds of raisins (stoned and chopped); 1 pound of currants; ½ pound of citron; flour to make a batter as thick as pound cake. Add salt and all sorts of spices.

Boil or steam five hours. Eat with some sauce.

SALEM PUDDING.

One cupful of suet, chopped fine; 1 cupful of molasses; 1 cupful of milk; 1 teaspoonful of soda; 3½ cupfuls of flour; 2 teaspoonfuls of cream of tartar; 1 cupful of raisins; 1 teaspoonful of cloves; a little salt.

Steam three hours. Eat with some sauce.

CARROT PUDDING.

Half a pound of grated carrot, ½ pound of grated potato, ½ pound of suet, chopped fine; ½ pound of flour; spices of all sorts; salt, raisins and citron to taste.

Steam five hours. Eat with some sauce.

GREEN CORN PUDDING.

Take 6 ears of sweet corn (good size) and with a sharp knife split each row of kernels and scrape from ear. Mix with this pulp 2 eggs well beaten; 2 tablespoonfuls of sugar, 1 tablespoonful of butter; 1 teaspoonful of salt; ½ pint of sweet cream (milk may be substituted with an extra spoonful of butter); and 1 dozen crackers grated or pounded fine. Mix well together and bake three hours in a pudding dish. If in custard cups, bake two hours. Use the corn raw.

MRS. MEACHAM'S BOILED INDIAN PUDDING.

Two teacupfuls of Indian meal; 2 cupfuls of flour; 1 egg; ½ cupful of molasses; 1 teaspoonful of soda; 2 teaspoonfuls of cream of tartar. Wet with milk till about as thick as a cake. Steam three hours. Never lift the cover while it is cooking or it will not be light. Serve with some sauce.

GERMAN PUFFS.

One pint of milk; 5 eggs; 2 ounces of butter; 10 teaspoonfuls of flour. Bake in cups. Serve with some sauce.

A SAUCE FOR BOILED PUDDINGS.

Beat together well equal parts of butter and white sugar till the mixture becomes light, then season with nutmeg or any flavoring desired.

A SAUCE FOR BAKED PUDDINGS

Take 1 pint of water; a large teacupful of sugar; a piece of butter the size of an egg; a little nutmeg and essence of lemon and bring them to a boil. Then take a little flour or cornstarch and beat it into a thin paste with water. Stir the paste in the ingredients previously boiled till the mixture is of the consistency of cream. Then add a tablespoonful of vinegar.

JELLY PUDDING.

This is really a sort of glorified bread pudding that makes a nourishing dessert to be served to children. First remove the crust from a medium-sized loaf of bread. Break the centre part into bits, and put these into 6 cupfuls of milk. Set them aside to soak for an hour or so. Then stir in one cupful of granulated sugar and the well-beaten yolks of 3 eggs.

Beat this mixture thoroughly; pour into a buttered baking dish; set in a pan of water and bake as only would a custard. When the silver knife test shows it is done, pour a glassful of jelly over the pudding, spreading it well. Over this heap the stiffly beaten whites of the 3 eggs

Return to the oven, and bake until the meringue is golden brown. Serve immediately.

Races in Hawaii.

Some thirty distinct nationalities are represented among the 300,000 people of the territory of Hawaii.