



Agricultural Department.

WHO SHOULD KEEP BEES?

Our answer would be. Every one who is at the head of the family should keep at least a few colonies of bees, enough to give them all the honey wanted for table use. There can be no greater luxury, and its great medicinal qualities should make it a favorite in every family. Yet how few there are among the great masses who keep bees. What our people want is light upon the subject, to learn that they can keep a few colonies just as well as not. As honey can be used instead of sugar, in nearly every case, for sweetening purposes, and as it can be produced at three hundred per cent. less than sugar, is it not time that we were giving the subject more attention? Look at the amount of labor, capital and costly machinery it takes to produce even the commonest kind of sugar. We will say right here, and without fear of successful contradiction, that one-tenth of that amount of capital invested in apiculture would net the owner five hundred per cent. more than he gets from the very many thousands he has invested in the production of sugar.

We are not a prophet, nor the son of a prophet, but if we were, we would predict that the day was coming, and not in the distant future, either, when the producers of honey will put upon the market a sugar made from honey, the equal if not the superior of any sugar now sold in our markets, and that, too, at one half less price than sugars are now sold at, and yet afford the producers a large profit.

Should the recent European demand for our honey continue, that day may be delayed for years. Look, if you please, at the costly expenditures that have been made to manufacture sugar from beets, corn, etc. One of these days some chemist will notice the hitherto unthought of creature of nature, the little silent, budding and blooming flower, laden with nature's choicest saccharine matter, beckoning, nodding and swaying in the gentle breeze as much as to say to the chemist: It is I you are looking for. Why look farther when I and my fellows can give you, and that, too, free as mountain air, all the sugar and honey the whole world can consume? And methinks I hear the whispering flower say, Look at that little busy bee, see how it takes what God in his goodness has deposited with me for the benefit of man. I am but fulfilling the end of my creation in handing over the stores that God has so kindly lavished upon me. Go you to the bee and make him share with you, for he was not created in vain and has a mission to perform. The bees take the honey from the flowers; we in turn should take the honey from the bees. In this case nature has given us a lesson that we should ponder well. Nature is depositing daily in the flowers a fresh supply, and if there are not enough bees to gather it, it is evaporated by the heat of the noon-day sun, and as sure and constant as the bee takes the honey from the flowers so should we take the honey from the bees. We have but to follow nature's teachings in the management of the little busy bee. They in turn will soon give us ample proof of their ability to gather and store an immense amount of honey annually to the colony.

But there are others who should keep bees, and more especially those who have but little or no capital to do business on. And while all the different industries of the country seem to be filled with producers and their combined production exceeds the demands for them, the result is there are hundreds and thousands out of employment, and the question with them now is what can they engage in to get a living profit upon their investments and productions? We would say to you, turn your attention to bee culture, here is an enterprise that you can engage in with safety, and if you will follow our printed directions and instructions you will succeed. You can engage in this business on but little capital, and in addition to that you may have at least some knowledge of the honey bee. With that you want a large amount of energy and a determination to succeed in your new enterprise. With these acquirements you can very safely count on getting an average of at least forty dollars, cash, annually, from every good colony of bees that you keep. The apiculturist has no rents or pasture to pay for, and his little pets work constantly for him and board themselves. There are, to-day, scattered all over this great country of ours hundreds and thousands of both men and women who have had reverses in business, and to-day they have all they can do to keep the wolf from their door. Our advice to you would be, turn your attention to

bee culture and you will soon be yourself again. In this enterprise the women, too, have an equal chance with men. They make the better bee-keepers of the two, but, says one, is there not danger of overstocking the country? We would say in reply that we have not been able to do it, yet twenty-five years ago, when our people in nearly every section of the country commenced to set out extensive fruit farms, these same alarmists everywhere began simultaneously to cry out, You will soon be cutting those trees down, as apples won't be worth four cents a bushel. Instead of these predictions being fulfilled our fruit-growers are getting remunerating prices for all they can raise, and to-day the demand far exceeds the production. The same may be said of honey twenty years ago. Apiculture was but in its infancy, and the apiarians of that day could almost be counted on the finger ends, and honey selling at from five to ten cents a pound, and not in money at that. From that time to the present, bee-keepers have been increasing annually by the multiplied thousand, and to-day they may be numbered by thousands, whose annual production is from one to one hundred tons of honey.

About one year ago, Mr. Harbison shipped of his own production, and that, too, by the same train, one hundred tons of honey from California to New York. At the same time hundreds of tons were pouring into the New York markets from the different sections of our great country, and yet that immense amount of honey did not break the market, and to-day the apiarians' future prospects never looked more bright and flattering. What we more particularly refer to in this connection is the very great European demand for our extracted white clover and bass-wood honey the past season. And to-day that demand is increasing, and is likely to do so, for wherever our white clover and basswood honey has been introduced abroad, it is conceded to be of a better quality and a much finer flavor, and does excel any honey that has ever been sold in their markets, and the demand for this honey far exceeds the supply. There are purchasers in New York city who are advertising for extracted white clover and basswood honey, and are buying all they can get, for which they are paying twenty-two cents a pound cash, and they like it all the better if it is candied. This is certainly very encouraging news to the bee-keepers. Twenty-two cents a pound for extracted honey is equal to fifty cents a pound for honey in the comb. Now let us look a little farther. A good colony of bees can very easily gather two hundred pounds of honey in one season alone from white clover, and if they have the advantages of basswoods, that will give them another hundred pounds. In our opinion there is honey gathered from many flowers that are fully equal to basswood or white clover honey. In some portions of the south they have what is called sour wood honey. We do think that this honey can not be excelled, and only wants to be better known to be appreciated. In other portions of the south they have what is known as Ty Ty honey. It is said to be very fine and of superior quality and flavor. Had we the space we could refer you to very excellent honey gathered from many flowers not here mentioned. And now let us say in conclusion, does not agriculture have a hopeful and bright look for the future? Are we not warranted in calling the attention of our people to this subject and urging it upon those who have but little capital to at least give it a little investigation?—*N. C. Mitchell in Indiana Farmer.*

FRUIT CELLARS.

The importance to every fruit cultivator of a suitable place in which to store the products of his orchards late in the autumn and during the winter is strangely overlooked. No farmer's establishment can be satisfactory without a fruit cellar, and this is specially the case if large quantities of apples, pears, or grapes are among the products of the farm. The ordinary cellars under dwellings do not meet the want, as they are usually not adapted to preserve fruit, except for a month or two after harvest. They often do not protect from frost, or they are damp and without means of ventilation, and fruit soon decays. To keep fruit several conditions are important. First, the atmosphere of a fruit room should be dry; there should be no more dampness than ordinarily exists in the cold outside air. The room should be susceptible of ventilation in proper weather, not by direct currents of air, but by air modified before it reaches the fruit. A fruit room must be frost-proof; it must be cleanly and accessible. As regards location, it may be placed on a side hill, the excavation opening to the south; or it may be placed under a barn or stable, or other convenient outbuilding. It is not well to store large quantities of fruit in rooms under dwellings, even if they are adapted to the keeping of the fruit. The hygiene of families must not be jeopardized by the possibility of evil results arising from the decay or fermentation of vegetables in rooms under family apartments.

Ten years ago we constructed a fruit cellar under our stable, and it has proved so satisfactory that we venture to give a brief description of it. The division walls are constructed of brick, and the apartments are two in number, an outer and an inner room. The outer room is but partly underground, and is ten by twelve feet in area and eight feet high. The inner room is wholly underground, and frost-proof; it has four brick walls and a cemented floor. In this room the fruit is stored early in December, when the weather becomes cold. The outer room holds the fruit during the autumn months after it is gathered, and it is cool, well lighted, and dry. The windows are left open and a free circulation of air allowed so long as no danger from frost exists. When the fruit is taken to the inner room, the door is closed and no light admitted. Ventilation is secured in moderate weather by opening the inner door and throwing down a window in the outer room. In this cellar we kept apples of last season's growth until the present winter in perfect condition. Some of these apples, exhibited at the autumn agricultural fairs, were pronounced as fresh as those of the past season's growth.

Apples stored in this cellar which would bring only one dollar a barrel at the time of gathering we sold last spring and summer at three dollars, without picking over. The profits of a good fruit cellar are greater than anything connected with farm arrangements.—*Boston Journal of Chemistry.*

PRESERVING FENCE POSTS.—The *Journal of Forestry* gives some excellent instructions on this subject. It is important that the posts be very thoroughly seasoned before external paints are applied, otherwise the moisture will be confined and increase the decay. It is therefore important to season the posts as rapidly as practicable after they are cut, in an exposed, windy place. Coating them with coal tar is especially recommended. The acid in the tar is to be destroyed with fresh quicklime, and the tar thoroughly boiled to evaporate all the water. Apply it to the posts while hot. The recommendation of that journal to char the posts we cannot endorse, as the charred part will be made weaker, and will not exclude water from the inside. A thick coat of well-applied gas-tar would be far better. But baking the wood so as to turn it slightly brown, would not render it weaker, and would give it some of the durable properties of charcoal; and if the coal tar is then applied the preparation will be nearly perfect. It must be remembered that coal tar does not do well on wood above ground, exposed to sun and weather. A copious application of crude petroleum is the thing for such exposed surfaces.

SHEEP FOR MUTTON.—Let the farmer begin with an intelligent determination to produce lamb and mutton that shall, at all times, tempt the appetite as well as satisfy it, besides furnishing an article of food than which no other is better adapted to nutrition, and he may be sure that he is already on the right road and can make no mistake. He cannot make palatable mutton for the table of consumers any more without taking pains, than he can make appetizing beef and bacon. The right breed and the right feed are all there is to it. First get real mutton sheep and then give feed that makes mutton that will be eagerly eaten. Their food is their mainstay, almost as much the stock in trade for the farmer as the sheep itself. A sheep will not thrive on next to nothing, though it may, for a time, live on it. To make first rate mutton, from head to haunch, which every farmer worthy of the name should aim to do, the animal must have good care and good food.—*Mass. Ploughman.*

ATTRACTIVE HOMES.—There is use in beauty. It makes home attractive, its exterior more respectable, our lives happier, our dispositions sweeter, and our social and domestic intercourse more refined. By all means plant some little thing of grace to temper the rugged surroundings of the front yard. Its silent, though eloquent language, will speak to the visitor or the passer-by a word of eulogy for you. The least flower or shrub will be some attraction; a curved path winding between trees to the house, a mound of stones and shells with the ivy trailing over them, the flowering shrub or the turf of fern—all such things are attractive, and form a pleasing object for the eye of even the most indifferent beholder.—*Rural Messenger.*

—S. D. Lyle, of Montgomery County, Pa., gives his experience on this subject in the *Germantown Telegraph* as follows: "About five years ago I set out four hundred pear trees, the orchard being rolling ground, southeast exposure. To prevent washing, I terraced about one-half of the ground and planted two hundred trees in each. The part occupied by the other two hundred trees I used as a truck-patch, keeping the trees under clean cultivation. The trees planted were of the same varieties on each patch. The result at the present time is as follows: Those planted in grass lose by blight five per cent., balance being in healthy condition; those planted in clean soil lose fifty per cent. by blight bal-

ance in unhealthy condition. Put me down on the list with those in favor of grass for pear culture."

DOMESTIC.

HINTS ON HOUSEHOLD ART.

BY ALICE M. WEST.

I wish I might say something to encourage the women whose purses are short and whose leisure hours are few, but who nevertheless are full of desire to make their homes charming, attractive, and truly homelike. If such a one is willing to exercise a little ingenuity and skill they may make their home very pleasant at very slight expense. There are a thousand pretty devices to be made in odd minutes out of inexpensive material which add wonderfully to the appearance of a home, and give it an aspect of feminine taste and skill pleasant to see. Moreover, such work is in itself so fascinating that as the delicate shapes and tints grow beneath the touch one feels themselves fully repaid for the effort by the pleasure received in the work, even if the pretty lamp mat, sofa cushion or chair cover, would not claim also as it does the additional beauty of usefulness.

Even the lack of furniture may be in part supplied by articles of domestic manufacture. Get your husband or some one else to make you a frame for a sofa, stuff the top with straw to give it a rounded appearance, and cover smoothly and nicely, add a couple of large square sofa pillows covered with the same material as the sofa, and ornamented with cord and tassels and you will have a lounge quite as comfortable and convenient as anything you could buy. Your old square-topped stand you can convert into a pretty centre table by sawing boards to form a round top for it which a few screws will fasten securely in place, and staining or painting to match the bottom, any deficiencies will be concealed by a cover of crimson or green flannel, ornamented with a border of chain stitching and finished by a worsted fringe.

In one corner of your room between door and window is just the place for the book shelves; these, together with some shelves for the window on which to place house plants, may be made of pine, stained with a solution of burnt umber and white lead mixed with boiled linseed oil, and supported on iron brackets; the edges of the shelves you can adorn if you like with lambrequins of black cloth cut in points and ornamented with appliqué work or bits of bright velvet cut in fanciful shapes and stitched on with silk of contrasting color. Under the book shelves hang a large cornucopia made of pasteboard covered with plain brown or black paper, an inch wide band of gilt paper pasted around the top and a round or oval picture on the front.

Old boxes, their covers fastened on with leather hinges, cushioned and covered with pretty material, make nice seats to place under the windows or in the warm corner back of the stove, and at the same time furnish wonderfully convenient receptacles for patterns, work, the children's toys, and all sorts of odds and ends for which there seems to be no other place. Do not allow your walls to remain bare and unadorned for lack of pictures. Cut the most suggestive ones from your magazines, provide them with a mat, a back of strong pasteboard and a glass, then bind them with strips of morocco, paper, or common cambric, black or drab; before binding, however, make a little slit in the cardboard, on each side, one-third the height of the picture from the top, and fasten a button ring on the back at this point by running a stripe of tap through the ring, then inserting the ends of the tape through the slit, and fastening them firmly with glue on the inside of the pasteboard. When all is firm and dry fasten the cord by which your picture is to be hung to the rings.

If your mantel is defaced and looks badly cover it smoothly with rep, or enameled cloth to match the furnishing of the room, and tack fringe around the edge. If you have no mantel, saw a shelf out of a piece of board, rounding the front corners, support on iron brackets, and cover as above. On each end of the mantel place a vase filled with pressed ferns, and between them a clock, plaster cast, or any similar object.

A pretty coral basket to hang in the window, or brighten a dark corner, is made of hoops, with the webbing left on, tied together in any graceful shape. After the basket is formed, tie on here and there grape stems or bits of cord twisted slightly. Have ready a mass of melted beeswax and rosin, equal parts, colored scarlet with vermilion, and with a spoon dip it over every part of the basket until all is covered. When cold and hardened line the basket with the gray moss found on rocks, pressing the moss through the openings so as to hold it in place, and place inside, suspending the whole by scarlet cords, a tin can filled with water in which branches of Wandering Jew are growing. If your treatment has been skilful you will be pleased with the result.—*Household.*