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THE NEBRASKA
BEE-KEEPER.



VOL. 8.

YORK, NEB., MARCH, 1897.

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Gleaning's Ridge Pole Musings.

By R. C. Aikin.

ALFALFA HONEY; ITS CHARACTER; TENDENCY TO GRANULATE.

The quality of this honey is very good. My experience is that it is fully the equal of white clover in respect to color, though some from other States or elsewhere report it as amber in color. Possibly soil or other conditions have to do with color; but my opinion is that the great bulk of it is white. In body, it is very heavy. It frequently becomes so very thick and tenacious that it can not be successfully extracted unless at a temperature of nearly 90 degrees F. In flavor it is quite mild. There is an entire absence of that twang peculiar to white clover. Many people who could not eat honey in the East are very fond of alfalfa, and eat it with no evil effects. It is a rare thing to find one who dislikes the alfalfa flavor if he likes honey at all, and very many will eat it who would not eat other honeys.

Now, while the body, color, and flavor are excellent, there is a feature that is against it; and that is its tendency to granulate. Alfalfa comb honey, as a rule, will not keep over winter without granulating to some extent, both in brood-combs and sections. Let me say right here that I anticipate a thumping from some of the alfalfa-producers; but, thumping or no thumping, I want to tell the truth. If telling this truth about it will injure its reputation, it will have to bear it; but the fact remains that its good qualities will find it a market in spite of the one failing.

Extracted honey will candy solid in ten days to six weeks from extracting. With me it does this *every time*. This candying is a more serious question when extracting than if comb is produced. If the last extracting be a month later than the first, the first will be solid in tanks, cans, or whatever in, before we have time to get it in shape to retail. Wherever a bit of the honey stands for two or three weeks it *must be heated to get it out*. This question has become so serious with some of us that we think of adopting altogether different methods from those now in vogue in the matter of marketing extracted honey. The marketing question I will handle by itself, so drop it here.

OTHER HONEY-PLANTS.

The noted Rocky Mountain bee-plant (cleome) grows quite freely in

some parts of the State - This plant is a great favorite with the bees, and, like the sweet clover, will be covered with bees. Several times I have had occasion to photograph it, but it seemed that the bees could not be kept off long enough to let it become still. This plant is quite peculiar in some of its habits. It seems to prefer a dry soil, often growing on gravelly, barren-like places that grow little else. While it will grow luxuriantly on good soil, it evidently will not thrive with "wet feet." It is strictly an annual, growing two to six feet high. When crowded together, plants usually attain an average height of two to three feet; but if not crowded they grow four to six feet, and spread their branches to a diameter of three to four feet. Like nearly every other plant that succeeds in dry soils, it has the characteristic long tap root. The bloom is a pinkish purple, and a very pretty one.

The cleome honey is just enough amber that it can not be strictly called a white honey. The flavor is a little bit rank at first; but when well cured it becomes rather mild and not unpleasant. In flavor I would class it with heart's-ease, and in color a little whiter than heart's-ease.

SWEET CLOVER.

This plant is so well known that it needs no detailed description. It has the penetrating root, grows on almost any soil, and yields a good grade of semi-white honey. The plant has been said to prefer a dry soil. In Colorado it grows well along ditch-banks, on bottom lands, and near the margin of swamps. I should say it favors a rich, moist, but well-drained soil. I say it grows on ditch-banks, and so it does. The Easterner would associate a ditch with a swampy, heavy, wet land. In this country a ditch is rarely built for *drainage* purposes in soggy land, but through high, dry, rich farm land, to convey water to irrigate growing crops. The soil is rather clayey, and, though the ditch have a continual running stream, the water does not "percolate" (seep or waste through the soil) sufficiently to keep alive a shallow-rooted plant a distance of one rod from the ditch. Our ditch-bank, then, means a well-watered, well-drained, soil; and in such, sweet clover thrives.

I have no other honey-sources that give a surplus except some times red clover. The red-clover honey is almost an amber, and has the decided clover twang. I would class it as first grade, but at the bottom of the grade.

We have a weed that I think is peculiar to the West, and of which I can not recall the botanical name. It has the sunflower form of bloom, about one inch in diameter, and yellow. The plant grows about one to three feet high, and blooms in August and September. It is called here resin-weed, because the leaves and branches have a glossy, gummy sur-

face. It yields much pollen and a little honey. The honey has a golden tint and somewhat rank flavor, though not bad, and candies very quickly. One of our apiarists, speaking of it, said, "When the bee works on the resin-weed it hies itself home quickly to unload before the honey candies in its sac."

Conditions Under Which These Plants Yield Honey.

There seems to be something in the weather conditions that none of us can understand, that seems to stop all secretion of nectar when we would expect it otherwise. Such times we *seem* to have right conditions, yet no secretion takes place. This I can not at all explain. Aside from this I will speak briefly of conditions. I find alfalfa yielding well in steady settled warm weather, preceding thunderstorms, and and right through *local* thunder-showers; but immediately following a *general* storm the secretion is very light. Cleome yields best early in the morning, and when the weather is slightly cool and damp. Work begins much earlier in the morning on cleome than alfalfa and ceases earlier in the day. This would indicate that heat is necessary for alfalfa, and cool weather for cleome. Sweet clover seems to be less affected by either heat or cold, though I am inclined to believe that it does best with a good degree of moisture. I know bees will work on it in damp, heavy weather. Sweet clover, I think, is not worked so early in the morning as cleome, the latter being worked promptly as soon as the bees can get out in the morning. There is considerable primrose in my neighborhood, and the bees will rush for that in the early morn, and come in with great trailing loads of pollen. There is one thing that I have observed for many years—that bees are eager for pollen in the morning. Corn is also visited in the early morn. I do not know whether or not it is a provision of nature that the pollen-bearing plants should yield in the morning more than at any other time, but I do know that more pollen is gathered in the early part of the day.

The past two years have been very poor honey seasons in Colorado. Both years we had a good bloom. I thought each season that the prospect was good for a honey crop, yet it seems there have not been poorer years since the bountry was settled. The year 1895 was what is called there a wet one. A wet year means one in which there is almost sufficient rain to grow crops without irrigation. Neighbors continually asked if the bees were doing well. I would reply they were not. Why? What is the matter? Is it too wet? Then 1896 was dry and hot—not unusually dry, but unusually hot. For Colorado there was a reasonable amount of rain, but shortage of snow in the mountains to supply irrigating-water, hence many farms suffered for water, while others had a plenty. Again, the people would ask the same question,

only this time it was "too dry" instead of too wet. There is yet something which we do not understand that causes the bloom to secrete or to withhold its nectar. I believe that good growing conditions are necessary in all cases, but I can not get rid of the thought that electricity has much to do with it.

Observation and Experiments.

I wish there could be a concerted action on the part of a number of stations throughout the United States, each station to keep a daily record of barometer, thermometer, precipitation, clear or cloudy, whether storms are local or general, both general and particular weather conditions throughout the year; and at all times during the honey flows, or when there ought to be flows, have two or more colonies on the scales, and a daily record of gain or loss. I say two or more colonies, because I am satisfied that, when there are different *kinds* and *fields* of bloom at the same time, bees of different colonies will be working in different fields. I believe this because certain colonies will rob at certain places, and other colonies in the same yard not know where the honey is, or even find it at all. I believe there is some sort of communicating or imparting the whereabouts of sweets, and one colony may get started in one field and another in another field; then if the one on the scales should be cut down, there would be an interruption in the work of that colony that would not appear in another. If we are to get at the truth promptly and definitely, we must do both comprehensive and detail work.

I believe that soil has some influence on the secretion. It may be that certain plants must have certain elements in the soil that are peculiar to their health and growth in order that they may yield well. As before explained in these articles, there is a great diversity of soils in Colorado. Loveland is in the Big Thompson Valley. Fort Collins is in the Poudre Valley. These places are only about 15 miles apart, yet there is considerable difference in the soils. Each valley is watered by the streams of the valley. My observation for the past seven years is that the honey-flows in the Poudre Valley have been better than the Thompson Valley. The climate is the same, for it is an open country, and very similiar in nearly all respects.

Now as to some method of getting these observations accomplished. I do not know how we can do it; but I have no faith in government work, because there is too much patronage to get the proper persons to do the work. If the government does undertake it, it takes a long time to get the thing a going, and we lose interest before it is accomplished. We must wait and work for appropriations. After the work is done we must wait for all the red-tape business before it is reported. I am

not attacking the government, nor saying that it is not able to do such work. It is able, and should do it; but there is too much of the 'party' and 'spoils' element to get what we want. I am sure that many bee-keepers throughout the country would gladly do the work if they were furnished with the facilities. Many are now doing just such work on their 'own hook;' but the good results are lost by not having the work complete and systematized, and because there is no way to get the results together, and compared, etc.

I have brought up this subject now that perhaps the fraternity may get together in some way the coming season in some thorough observations in regard to the pursuit. I must say that apiarists are not organized as they should be; that our product is practically turned loose or gets to the consumer in a haphazard manner. Comb honey is much better marketed than the extracted, but there is need of reform in both. I propose, however, to discuss this matter later, so leave it here.

Sweet Clover--Is It A Noxious Weed?

By C. P. Dadant.

I have just noticed the discussion in regard to this plant in the Report of the proceedings of the Illinois State Convention at Chicago. I am somewhat interested in the discussion that may follow, because I have always taken the part of this plant, and have strongly recommended it, lately, in an article which I wrote to the *Prairie Farmer*, and yet, when I wrote the article, I did not know that there was some public mention of the matter.

Is *melilotus alba* a noxious weed? If it is, we have been guilty—my father and myself—of introducing a nuisance in our neighborhood. Melilot was brought to our country years before we came here, in the '50s'. It was sowed near the Mississippi river, close to a mill-dam built on the rapids by the Mormons. Perhaps it was even brought there by them. My father, who is somewhat a botanist, recognized the plant at once from the descriptions given in French works, and knowing it was a good honey-plant, set to work to gather its seeds. After sowing a small patch on our own farm, and finding that it was a valuable acquisition for the bee-keeper, he began sowing it in waste-places, in old quarries, along the creeks and along the river's edge. Mind, this was in the '60's, when land was cheap, farms were far apart, and cattle ranged at large over the commons. The result was that the melilot did not spread, but was kept down by the stock and never made much headway except on farms that were fenced up, in places where nothing was grown. There are patches of it yet, on two or three neighbors' land, in spots un-

fit for anything but pasture, but which find themselves, owing to the cultivation of crops within enclosure so as to be safe from the cattle's reach.

We have a friend in the city of Keokuk, four miles from here, who undertook bee-keeping on a small scale, I believe in 1868. He lives on the bluff, in a curve of the river, and in a spot that was totally devoid of pasture, except the few fruit trees and patches of lawn common in a city. The only great pasture in reach was on the bottom lands across the river, a mile wide. My father then urged him to sow sweet clover about the bluff on which he lives, which is about 200 feet high and so steep that no house may be built on its slope. The melilot grew there in abundance and spread far and wide, for there was no stock in reach of it. It has now spread about and grows along the railroad tracks, and in deserted street corners, so much so that it makes quite an item for a honey crop.

Now, if this is a noxious weed, and our friend, in following our advice, has committed a nuisance, let those who say it is a nuisance rise and tell us what constitutes a nuisance. Do they mean to say that in those waste places where this plant grows, nothing else would grow? About the railroad tracks for instance, where it is probably most objectionable, will you say that if it was not for the sweet clover, the railroad companies would not have to mow and clear up the side of the track? I have traveled in many directions and have always seen many tall weeds, in all productive soil, along the railroad tracks, even where there was not and had never been any sweet clover. If it is necessity for the railroad companies to cut down weeds, what does it matter to them whether it is melilot or rag-weeds?

The melilot is neither larger nor tougher than the rag-weed, and is of some use to somebody, while the rag-weed is good only, as far as man knows, to cause hay-fever in people who have a tendency to asthma, by the profuse, rank pollen that it produces, and which is so plentiful that it covers the water of ponds with a yellow veil, and covers your clothes with a *powdered, mustard-looking dust*, during hay-fever time, from July to September.

Then, if some weed *must* grow, on our rich Illinois soil, (and thank Nature that it is so, for if it would not grow weeds, it would not grow corn and wheat)—if we must have some weed, I say, why not have a weed that is good for somebody, instead of a weed that is injurious to some and good for no one?

What harm does the melilot do you, Mr. Lawmaker? Did it ever grow up in your corn-field, or in your potato patch, and take away a shade of a shadow of nutriment that properly belonged to your tilled

crop? No, for it is a biennial, and if you failed to turn it over last year, you surely must have plowed it up this spring when you put in your crop. And in the place where you found it, you may notice that the corn is stronger, just as if you had had a crop of red clover in that spot, for the roots of the melilot sink deep in the soil and bring more from the atmosphere than they take from the land.

Where, then does the melilot hurt you? In the pasture? If you have any in your pasture, you know that the first year's growth cannot stand the close grazing of the cows, and that it is only after it has stood one season sheltered from stock that it may withstand the teeth of the stock and live a stunted life, covered with bloom, however, in your pasture, until it dies the following winter. Sweet clover cannot stand regular pasturage, followed for three years or more in one spot; we have had evidence of this, right at home, for years.

Melilot may be a useful plant. Mr. Chas. Peloquin, of Canada, a dairyman, has for years grown it for early yasture. He finds that the second year's growth begins very early in the season, and that if clover is cut when about knee high, it is very good feed for milch cows. He therefore cuts it in the beginning of May, when there is practically nothing as yet in the way of green pasture, in the Province Quebec, and harvests a paying crop in this way, before it blooms and gives his bees another paying crop.

Why is it, then, that they are trying to or are passing, laws prohibiting the sowing of melilot? Because bee-keepers do not keep awake to their own interests. Our law makers, I am sorry to notice, are not farmers, but lawyers, and they are easily influenced in matters like this, and there are some persons, (scarce though they may be) who are jealous of anything that may help the success of others.

Spraying Fruit Trees.

As spring approaches, our horticultural friends will soon begin spraying their fruit trees and plants. It has been amply demonstrated by competent tests that no good can result from spraying while trees are in blossom, but is a loss of time and material as well as a loss to the bee-keeper, by killing his bees at a time when they are needed to properly fertilize the fruit blossoms.

There should be no clash between these two interests, as each is dependant upon the other. If the apiarists will only take the time and trouble to explain to his neighbor that it is absolutely essential to his fruit crop to have the bees fertilize the blossoms it may result in some good, then explain to him if the spraying is done before the fruit is formed, or while the blossoms are still on, that no good is done, a double

benefit will be derived. He has more and better fruit, and you have your bees and honey.

Strawberry Culture.

For home use, strawberries may be planted in rows some three feet apart and one foot apart in the row. But much larger and more fruit can be grown by close planting, say one by one and a half feet, and cutting the runners as fast as they grow. In field culture they are usually planted in rows four feet apart and one foot in the row. Planted so, most of the cultivation may be done with horse labor. It is very essential that they be kept free of weeds all through the season. It is well to mulch them early in the winter for protection against severe and sudden changes of weather, and to keep them from heaving out. Coarse horse manure is first rate for this purpose, but in want of it, potato tops, corn stalks, evergreen bough or other litter having no weed seeds in, will do. Coarse material has to be removed in the spring, while the finer parts of horse manure may be left to fertilize, and keep the ground damp, which is quite an advantage in dry weather.

A fair average crop, under ordinary field culture, is about one hundred bushels per acre, but much more than this has been grown, even as much as a quart per plant.

Notes on Horticulture.

The horticulturist of the future will be an entomologist. His knowledge of insects will enable him to discriminate between insects beneficial to horticulture and the deadly foes which wreck his hope and profit. Science will help him to success. He will know friend from foe.

Kill the orchard insects in their winter quarters. The leaf roller eggs may be found on the south side of the trees under little patches along the trunks and limbs, and may be readily destroyed by the millions by rubbing off these patches.

The structure of the bark and fiber on the north and south side of a tree differ considerably. In transplanting from the nursery a mark should be made on the body of the tree, so as to set it out precisely in the relation it formerly bore to the cardinal points of the compass.

When pruning, there is no better or cheaper preparation to apply to the stumps of the larger limbs than good white or red lead and linseed oil. Use no turpentine. Let the surface season a little, for paint and oil can not adhere to a wet surface, but will peel off or let the sap blister beneath it.

Many who have good orchards suffer loss by allowing a few trees of worthless fruit to remain year after year. There is a yearly resolve to change the tops next spring by grafting, but when the time comes around the resolution is forgotten, and the tree remains.—Wis. Ag.

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L. D. STILSON, EDITOR.
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Officers of the Neb. State Bee Keepers Association:—Pres., E. Whitcomb; Vice Pres., H. E. Heath, Lincoln; Sec. and Treas., L. D. Stilson, York.

A New Remedy For Potato Scab.

Potato scab is a source of material loss to those who grow potatoes for the market, and a great blemish in all cases. It is one of the triumphs of practical botany that the cause of this trouble has been traced to a minute germ that feeds on the surface of the potato tuber, and to a less extent on other fleshy roots and tubers. It has also been found that a suitable fungicide will kill the germs on the tubers without injuring the growth of the potatoes. Corrosive sublimate meets these requirements and has been advocated by the Purdue experiment station, where its application originated. So effective has it been found, so cheap and easy to apply, that many large growers, who get extra prices for their crops by having high grade product, have adopted the treatment as a regular thing.

The deadly poisonous nature of corrosive sublimate, however, has

kept it from coming into general use. It is, therefore, considerable a matter of considerable moment to be able to announce the discovery of a new fungicide for potato scab, one that is thoroughly efficient and not poisonous. The new substance is formalin (sometimes called formaldehyde), a watery solution of a gas, not very expensive, and rapidly coming into favor as a general antiseptic, so that it is likely to become still cheaper and better known. It is sold by the fluid ounce, and can be obtained at most drug stores.

The method of using the new fungicide is very simple. Eight ounces of the formalin are added to fifteen gallons of water, and in this the seed potatoes are soaked for two hours. After taken from the bath they can be cut and planted as usual, either at once or after some time. Formalin is not corrosive, and so can be used in any kind of vessel, and not being poisonous there are no particular precautions to be observed. It does, however, make the hands smart, if there are any raw spots, and the fumes irritate the eyes and throat. But these are only slight annoyances. Further information about formalin and its use as a fungicide will be given in a bulletin to be issued in a short time.

The potato crop of the state of Indiana reaches annually the large figure of over 90,000 acres, and nearly 6,000,000 bushels, and is sometimes larger. The treatment

of the seed tubers as here recommended will materially raise the market value of the crop and prove a source of profit of no mean proportion. Try it. J. C. ARTHUR, Botanist Purdue University Agricultural Experiment Station.

◆◆◆◆◆
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◆◆◆◆◆
 The farmer that don't have a good garden that will furnish him an abundance of vegetables the year round is not getting all there is in life by a good deal. Try and have a better garden the coming year than ever you have had.

◆◆◆◆◆
 Wherever any considerable interest is taken in fruit culture of any kind there should exist a live horticultural society. A very profitable meeting can be held once a month, and those who go once and take part in the proceedings are seen to go again. It is a very easy matter to get an organization of this kind on foot if some energetic individual will only take the matter in hand and give it a little attention.

◆◆◆◆◆
 It is said a small piece of copper as put on top of pot will cause fuchsias to bloom. Daily watering will melt the coppers.

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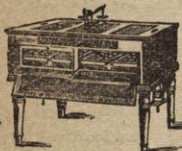
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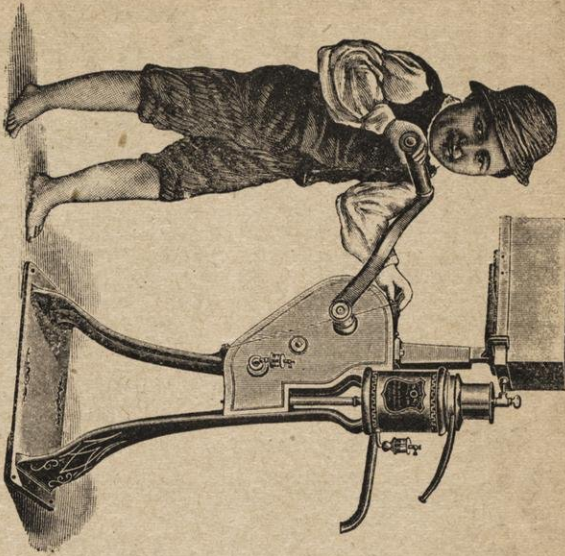
"My 8-year-old girl can start it and speed it to 50 turns." S. N. Sherman. Meckville, Pa., Jan. 9, 1897.

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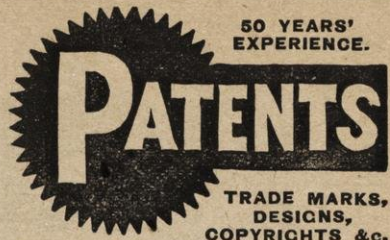
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