

composts are beneficial, and can be used as auxiliaries.

With all our boasted attainments, the culture of tobacco is yet in its infancy with us; and the committee are well convinced from their observations that unless the hints above given are observed by us the tobacco interest, upon which we so much rely, will pass (as it has passed elsewhere heretofore) into other localities equally well adapted to its culture, and where producers will act more prudently.

We must learn to please the purchaser in quality, and this can only be done by observing the means noticed. One reason in withholding this report thus late was to observe whether the opinions arrived at by your committee would be sustained by the action of the purchasers of the crop; and we would now only add that with all the large area planted, and the large crop of '77, the quantity of first-class tobacco is exceedingly small, scarce and high in price, selling at 18, 20 and even 25 cents per pound.

Then let us profit by our past errors, and endeavor to pursue a course that will bring about more favorable results in the future.

J. M. FRANTZ, Chairman.

On motion, the report was received and the committee discharged.

Reports on Crops.

Henry Shiffner said there was still some tobacco in his section and selling at 2-6, 2-8, 2-10, 2-12. There has been no lack of buyers.

W. S. Kennedy reported about one-third of the crop in his district sold—some as high as 5 and 15.

W. L. Hershey reported sales at 5-18 and down to 2-10.

J. M. Frantz reported sales as high as 17 and 19 cents for wrappers.

I. L. Landis knew of sales in Manheim at 14-16, and some even higher, but these were choice lots.

For General Discussion.

J. M. Frantz related the case of a man who realized \$900 from two acres of tobacco, while he knows men who did not realize that sum from five acres. All depends on the superior cultivation and handling of the crop. There are ten poor crops to one really good one.

Henry Shiffner said the indifference of tobacco growers is surprising. They seem to care little how they grow their crops, and the result is an inferior article which buyers do not want. They must learn to grow better than they do now. They raise more than they can attend to, and the consequence is, the whole tobacco growing fraternity suffers.

Deferred Questions.

"When is the proper time to plant tobacco?"

Henry Shiffner thought it was best to plant early. Nine out of ten good lots are planted early. Early planted tobacco is always better in quality. It seems to be slightly lighter in color, but not much. May 10th to June 1st he thought a very good time. He does not approve of using water at planting time; better wait for a favorable season; have your ground ready and then take advantage of the season. The Connecticut tobacco can be planted later and will do equally well.

"Will it pay to pack and store tobacco at the present low prices?" was answered by Washington L. Hershey, as follows:

This question was referred to me, and although I am not able to answer it satisfactorily, I will make an effort in that direction. I am decidedly of the opinion that it will pay farmers having a good quality of leaf to pack and hold it, and also that the prices now paid by buyers do not give any profit to the farmer, as tobacco is sold for less than the cost of production. This being the case, the production of this commodity must eventually cease, as the farmer cannot afford to raise a crop and sell it for less than its cost. In my experience as a grower and packer, I have never seen a drugged tobacco market and the prevalence of low prices that was not followed to the second or third year by high prices and a buoyant market. In 1861 tobacco was a drug in the market at 5 and 6 cents a pound, and in 1863 and 1864 the same goods sold at from 20 to 35 cents a pound. In 1865 and 1866 the prices fell, and farmers did not realize more than 5 or 6 cents a pound; in 1872 and 1873 the prices fell to 6 and 7, and so on till the present time, when tobacco of a good quality commands a good price.

Since 1861 the prices have fluctuated very much. For a few years the farmer would receive paying prices for his crops, and then for two or three years the crops would not pay the cost of production. This being the case farmers should hold their tobacco until prices have again advanced. Packing tobacco is a fine art, and the man who undertakes it should understand how to select and grade tobacco. Regular tobacco cases should always be used, and tobacco when put in should be moistened, not dried out. If it has become dry, moisture can be imparted by the agency of sprinkling straw, which is piled around the tobacco. No two grades of tobacco should be packed in the same case; rather allow the case to be partly empty. It is allowable, however, to pack remnants of several grades into one case and mark the quantity of each on the case or on the book. To keep tobacco, the cases should, when packed, be

laid on their sides; they should also be stored in a warm, dry place. Tobacco after being packed will get very hot, and the inexperienced may take alarm when they find it so; but no matter how hot it gets it will, when cooled off, be all right again. Farmers make a great mistake by tearing tobacco apart when it gets heated; it is not proper to do so. Tobacco should never be kept over the year unpacked, because it is not possible for it to cure thoroughly, and an imperfectly cured tobacco will not sell for the same money that a thoroughly cured article will.

W. S. Kennedy thought this was an unusual season in which to sell tobacco. Buyers have had it all their own way. Some fine tobacco was sold as low as 2 and 10. Some bought their tobacco almost for nothing. He thought, therefore, it would pay to pack the present crop and keep it for a higher market.

Henry Shiffner thought this association had merely to do with the growing of the goods, and nothing with the packing. The indications are that not half has been sold, and perhaps much will not be. The crop as a whole is inferior, and he advised holders to sell, not to pack. It will pay at 3 and 10 cents, and if that price can be got, let it go. He knows little about growing the weed, but in eight years he has never sold his crop at less than twelve cents. He did not approve of packing the crop by the farmers themselves. The complaint that no buyers came about is because in some sections there are but few good lots, and it don't pay buyers to travel far out of their way to hunt up a single lot. He did not believe the charge that a combination among the buyers was made to beat down the prices.

Mr. Frantz thought there was no use in packing an inferior article. A good article sells for as much to-day as ever it did. Why then encourage the packing of inferior tobacco? It is not worth the trouble. It is a costly experiment, and the expense falls on the packer. Besides, packing is a trade that is not easily learned, and the packer may not improve his crop thereby. Sell your tobacco at the best price you can get, and then go to work and raise a better article the next time, such as you can sell. Much of the present crop of tobacco is dear at even the low prices paid.

W. S. Kennedy could not see how, if one man was forced to sell his tobacco at a small price, why other men who have good tobacco should not pack it. Why shall men sell their tobacco at current low prices when they are able to hold it? Packers often persuade men not to undertake packing their crop. He thought they can do better by packing than by selling it at prevailing prices.

W. L. Hershey had been fortunate enough to double his money on the tobacco he has packed. He has it inspected by regular inspectors, and it is always up to sample.

J. M. Frantz thought those who came into this city to sell were over-anxious or necessitated to sell, and for that reason took what they could get without much regard to the value of the goods.

New Business.

F. R. Diffenderfer asked whether the association had secured a place for its future meetings, and offered on behalf of the Young Men's Christian Association, the second-story room of their building at the low price of \$25 per annum. The Agricultural Society has already secured the same room for its monthly meetings, and at the same price. The room was commodious, handsomely fitted up, and desirable in every way; it was in fact the best room in which the association had ever met.

J. M. Johnston moved that a committee be appointed to make arrangements, provisionally, for the next meeting of the society, and this, in all probability, will be in the room just spoken of. The committee consists of J. M. Johnston and J. M. Frantz.

A bill was presented by the janitor for services, which, on motion, was referred to the finance committee, with instructions to pay it if found correct.

There being no further business the association adjourned until the third Monday in May, when we hope there will be a better attendance than there was yesterday.

BEE-KEEPERS' ASSOCIATION.

Monday afternoon, May 13, at 2 o'clock, the Lancaster County Bee-Keepers' Association met in what were formerly the Athenaeum rooms, the following members being present: Peter S. Reist, Litz, President; John Huber, Treasurer, Pequea; Daniel Krider, West Lampeter; I. G. Martin, Earl; Ellis Hershey, Paradise; J. F. Hershey, Mount Joy; J. B. Eshleman, Ephrata; J. G. Rush, Pequea; John H. Mellinger, Strasburg; E. H. Mellinger, Strasburg.

On motion F. R. Diffenderfer was elected temporary secretary.

Reports.

Mr. E. Hershey said, last fall he disposed of all his bees but fifteen swarms, which came through the winter all right. Had no swarms so far.

Mr. Rush reported that out of seven hives he had lost one; one colony has swarmed twice and both are doing well. The prospects for a honey crop are good.

Mr. Mellinger reported that all of his hives came through the winter very well; has had five new

swarms, one swarm has sent out three colonies and another will send out two colonies.

Mr. Martin reported that he had wintered sixteen colonies; he packed the hives in chaff, and they came through well. He had no swarms yet.

Mr. E. Hershey went into winter quarters with sixty-two swarms. He built a bee house, and brought all his swarms through. So far nine have swarmed; some of his neighbors have new colonies. The season has up to this time been unfavorable to the production of honey.

Mr. Eshleman read a letter from W. J. Davis, of Warren county, who was expected to be present. He had wintered one hundred and fifty-three colonies and lost nine. The letter further stated that the bees were hard at work, and the prospects for a large honey crop were very good. The speaker stated, in reference to his own bees, that he had wintered twenty-two colonies last fall, and all had come out. There was no trouble in keeping bees this winter as it was so mild. He only knew of one swarm in the neighborhood.

Mr. J. F. Hershey stated that W. B. Detweiler, a neighbor of his, had put up seventy-two hives last fall, and lost none. Mr. Myers's bees also came out well, but none have swarmed.

President Reist said that he started with four hives, which gradually increased to fifty or sixty. These he disposed of by selling or by placing them with neighbors. Of those put out in shares, all the swarms are doing well. One hive swarmed three times. He wintered on summer stands. Bees, everywhere, are doing well, and gathering honey rapidly. He used the Longstreth hive.

Questions Discussed.

Mr. Hershey asked in what condition a hive should be to be divided; and at what time it should be done. On this question he gave his own views. He thought the hive ought to be strong in bees and honey. If the hive is divided in the honey season, the old colony does not get strong enough to gather a stock of honey large enough to enable them to pass the winter, but if you wait until the hives are full, they can be divided safely. About three weeks from the present time they should be divided. The young swarm should have three weeks to gather its winter stock of honey. He preferred artificial to natural swarming; has lost a colony which he did not attribute to artificial swarming but to cold weather. After the 15th of June it is unsafe to divide a swarm; however, this season the limit should be placed about two weeks before that time, as the season is so forward.

Mr. Rush would rather depend on a natural swarm than upon Mr. Hershey's plan; he saw no advantage in that method.

Mr. Martin used a good deal of artificial foundation, and likes it very much. He has found as many bees to hatch out of them as when they are not used, although it is stated that the product is much less.

Mr. Eshleman's question was, "will a natural swarm accept immediately a strange queen without caging?"

Mr. Hershey said if an artificial swarm was divided it would not accept a strange queen; what a natural swarm would do he did not know.

Mr. Martin had no experience in the matter, but had read that the strange queen would be accepted.

Mr. Eshleman said his reason for putting the question was to ascertain whether a colony could in that way be Italianized.

"Will it pay to feed between the blowing of apple blossoms and white clover blossoms?" was asked by Mr. J. F. Hershey.

Mr. Martin thought that if they were fed until clover comes in bloom, they could then go to work in earnest.

Mr. Hershey was of the same opinion. But if the swarm has an abundance of old honey he would let them consume that; then there is no advantage in feeding them. He fed them through a tin trough about one inch wide, which is filled through a tube from the outside. The best thing to feed to them is honey; the next best sugar and water in equal proportion. Best brown sugar should be used. Honey stimulated the bees to breed more than did sugar.

President Reist asked whether bees can get into swarms without the moths laying eggs there.

Mr. J. F. Hershey said that moths do not lay eggs in the hives. They lay them on the outside, and the bees carry them in themselves. Moths will go into a weak colony, but not into a strong one.

Mr. Reist said he had heard that moths would not go into strong hives; but it was not true. They would go into any hive.

Mr. Eshleman had discovered that the moth would, if it could, deposit its eggs under the honey board, and the worm would then work its way into the hive.

Mr. Mulligan said you could not keep worms out of the comb. He had placed some in an exposed place on one of the coldest days in winter, but worms came out nevertheless.

Mr. J. F. Hershey proposed the question, "How soon should the second swarm appear after the first?" and it was briefly discussed. He thought it should be nine days after, as did other members, but Mr.

Mulligan said that under certain conditions it could appear seven days after.

Mr. Diffenderfer, when the question of the time of next meeting arose, said he hoped that it would be just in the fruit season so that they could discuss the question, "Do bees destroy Fruit?"

Mr. Eshleman said he did not believe a bee could eat the skin of a grape, though they might cut through paper; grape skin is almost as tough as leather.

Mr. Rush asked if any one could propose a plan by which it could be tested, and it was proposed to put molasses on a bunch of grapes and cut the skin of one grape. If the bee sucks the inside of the cut grape out, and does not touch the others, it is a reasonably sure sign that they cannot pierce the skin.

Mr. Eshleman said he would put a bunch of grapes at the opening of a hive, and then the bees could not get out without cutting the skin of the grape. If this did not test the matter thoroughly, he did not know what would.

The society now adjourned to meet the second Monday in August.

LINNEAN SOCIETY.

The Linnean Society met on Saturday, April 27th, 1878, in the parlor of the Y. M. C. A., Vice-President Rev. J. H. Dubbs in the chair. Seven members present. After attending to the preliminary matters the

Donations to the Museum

were examined. A bottle containing a moderate sized eel, cut open to show the egg tube along the spinal column, and the eggs, which was caught in the Little Conestoga by Mr. John Wahr, of South Queen street, on the 12th inst. This proves that eels have eggs, whether matured into small fish before spawning or after being spawned, is still a question. That immense shoals of the minute fry, from two to three inches long, are occasionally seen along the banks of streams in late spring is testified to by many.

Mr. Wm. L. Gill donated two *fac-similes* of the Washington cent. Mr. Linneus Rathvon also deposited nine rare coins for exchange for a duplicate cent of 1799, supposed to be in our collection. It is doubtful.

To the Library.

The proceedings of the Academy of Natural Sciences, Philadelphia, part III., September to December, 1877. Book catalogues, etc. The LANCASTER FARMER for April.

Papers Read.

No. 494, S. S. Rathvon, all about the eel and its relations and habits; this will appear at length in the May number of the LANCASTER FARMER.

A letter was read from the President, Rev. J. S. Stahr, stating cause of absence; it also contained a specimen and description of a cruciferous plant new to the county—the *Lipidium campestris*, found by Mr. C. H. Herbert, of Franklin and Marshall College, along the Reading railroad, north of Lancaster. We have the plant in our collection, No. 194. According to Dr. Gray, it is found in fields from Massachusetts to Delaware, introduced from Europe; rather rare, however. Dr. Darlington found it in the great valley, Chester county. Prof. Porter does not include it among the flora of Lancaster county.

J. Stauffer here mentioned a crucifix found by Mr. Gilbert, of the High School, the *Territis glabra*; Tower-mustard; in Gray's edition of 1856, he describes three species, and says the glabra is common northward among rocks and in fields. Yet strange that it is neither in the Floral Cestricea nor Porter's list of Lancaster county plants; nor do I find the genus in Man's extensive catalogue, nor in our collection of plants. This led to

Scientific Miscellany,

and the question also came up, is "Jasper right or wrong?" considering the late lecture on the motion of the planets and the stationary earth, as set forth by Dr. Shepfer, of Berlin.

The President, Rev. J. S. Stahr, now came in, when Mr. Dubbs insisted upon him taking the chair.

New Business

was called, when the chairman, S. S. Rathvon, from the committee appointed to negotiate with a committee of the Y. M. C. A., reported an agreement entered into with them in behalf of the society; also the ordering and having made additional cases for the museum—asking that the action of the committee be confirmed and the committee discharged. On motion, the report was accepted and adopted as the action of the society.

On motion, the committee nominally appointed at the last meeting to raise funds to pay expenses—namely, Messrs. S. S. Rathvon, J. Stauffer, Rev. J. S. Stahr and Dr. Baker, of Millersville, be the duly authorized collectors, to obtain

Contributions for Stock at \$5 a Share,

and the rights of members, and appeal to the liberal-minded citizens for contribution, as such a museum will be a credit to the city, and useful to the youth as object lessons, and hence an object worthy of public patronage among useful institutions.

A committee for classifying, arranging and label-

ing the specimens was appointed, viz.: S. S. Rathvon, J. Stauffer, John B. Kevinski, Wm. L. Gill, Chas. A. Heinitch and Samuel Sener, to meet on Tuesday at 8 o'clock, a. m., in the room, with power to employ assistance at the expense of the society.

After an expression of thanks for the comfortable room furnished on this occasion, the society adjourned to meet on the last Saturday in May, 1878.

AGRICULTURAL.

Corn Growing.

Much is said at the present time about corn raising, the manure in which it is raised, and the expense and profit accruing from its culture. For the benefit of those of your readers engaged in it, I will give you the time required last season to plant and hoe thirty acres of corn. The ground being prepared, two men each with a horse and planter, marked out and planted the whole field in 15½ hours each.

	Horse.	Man.
Planting.....	31	31
The first hoeing was done with hand wheel-hoe, by a man without a horse, in.....	—	60
The second hoeing was done with horse and man.....	30	30
The third hoeing was done by a man and horse.....	60	60
	121	181
Equal to 12-10 days for horse and 18-10 days for man. The man was paid \$13 per month, or about 58 cents a day, which equals.....		\$10.50
Horse 12-10 days at same price.....		7.02
		\$17.52

The crop was heavy, no manure being used. 287 bushels of ashes and \$58 worth of Bay State phosphate were spread on the field and cultivated in before planting, and there was not less than 1,500 bushels of shelled corn and sixty to seventy-five tons of fodder. When men can raise corn with such small expense for labor, there is no reason why there should not be enough raised in the Eastern States to nearly supply home consumption. One man can easily raise thirty acres. The crop was raised by the use of the Ross implements and after the Ross system of cultivation.—*Correspondent N. E. Farmer.*

How to Plow.

In his address on "Plowing" before the State Board of Agriculture of Connecticut, Prof. Stockbridge said: "There are two kinds of soil on every man's farm—the agricultural soil and the subsoil. The agricultural soil may be two inches deep, or it may be nine, but it is not twenty feet. It is no deeper than the air can penetrate. If the agricultural soil is too shallow it may be gradually deepened by lifting an inch of the subsoil at each plowing, bringing it up to the air and enriching it with manure. Our agricultural society committees, by their premiums for smooth, shiny, flat furrows, have done the community great harm. Such plowing as oftenest takes the premium is the very poorest kind of plowing. The soil is best plowed when it is most thoroughly crushed, twisted and broken, with the sod well covered. On some kinds of land I would have the furrows lapped an inch, as the Canada farmers plow. Let the air and water have a chance to circulate underneath the surface. Light lands, however, should have a flat furrow; we wish to make such lands more compact."

Pop Corn as a Leading Crop.

A writer in the New York *Sun* says that no city in the country of any pretensions is without its pop corn manufactory, large or small, and that one at Lowell, Mass., uses upwards of three thousand barrels a year, and another at Boston is not less extensive—together selling nearly 100,000 barrels a year, since it is declared to increase in bulk under the process about sixteen times. The varieties used are the Siberian flint corn, rice corn and Connecticut seed corn. Pop corn is grown from New Orleans and Prince Edward Island as far south as Texas. In the West and South these varieties degenerate rapidly by running into the large kinds of field corn, and the seed has to be procured from the Eastern States often. It thrives best throughout the region bordering on the 44th parallel of latitude, and sells at the manufactory at two to three cents a pound on the cob, and frequently yields one hundred bushels of ears to the acre. The white flint corn is the variety preferred by the manufacturers, and is well adapted to cultivate in our latitude. Would it not prove profitable for our farmers to cultivate this variety more extensively?

About fifty per cent. more of wheat has been sown in Iowa this spring than last, and the season of sowing is at least one month earlier this year than last. And the same is true of the State of Minnesota.

The white oil corn of Indiana is claimed to be the earliest matured, the largest grain, the smallest cob and the most productive corn in the world.

Up to March 9, the total receipts of wheat at lake and river ports, since Sept. 1, aggregate 54,355,000 bushels, against 32,651,000 last year.

HORTICULTURAL.

The Culture of Cantaloupes.

The culture of this fruit, unequalled we think by any other grown, we are glad to see is becoming more general. Almost every person having a garden of any size, is beginning to try his hand at it, and it can be done with almost as much success as raising a crop of corn. The ground should have a warm exposure and be friable—clay mold not being adapted—the hill should be dug out eight or ten inches, two feet in diameter and filled with well rotted manure, rich soil and sand—turnpike dirt is excellent as a substitute for the latter. Five or six seeds should be put at equal distances, about an inch in depth, and the "hill" should be even with the other soil, except when the season is wet, when they should be raised. They should be about six feet apart each way, and the plants when they have passed all danger, should be thinned out to two or three in a hill. The beds must be kept clear of all weeds and grass, and when the vines commence running they should not be disturbed, as the roots connected with the vine, and by which it is largely supplied with nourishment, will be broken. The ground, as the vines begin to extend, should be gone over with an iron rake, especially after a heavy shower, to loosen it and give these rootlets a chance to take hold. The seed should be planted at the time of corn planting.

Sowing round the hill, a few inches distant, early radish seed will generally protect the young plants from the bugs, and always will be more or less beneficial. Should bugs appear a sprinkling of weak whale oil soap and water, or of carbolic acid soap and water, will soon send them adrift.

The best varieties of cantaloupes to plant in this section are the "Citron," the "Jenny Lind," the "White Japan," and the "Casaba." The "Nutmeg" is too late for us.

There is no reason why all our farmers should not have a patch of cantaloupes for family use. A plot of ground 40 by 20 feet would be enough for a moderate sized family. They can raise far superior fruit to any found in the city markets.—*Germantown Telegraph.*

Excessive Stimulation of Strawberries.

Here let me caution cultivators of strawberries against the excessive use of all stimulating matter, such as contains a great amount of ammonia or nitrogen in its various combinations. Among such fertilizers are guano, bone dust, phosphates, hen manure, night soil, poudrette and urine; all materials of this character, although very useful in their proper place, are detrimental when out of it, and may even become deleterious when used to excess. They are found very useful in heavy compact soils, cold and slow in action, and especially those well impregnated with carbon in any form, such as black muck or peat, or old manure that has lost a great proportion of its stimulating property, as is often the case with that which is not composted. It is well, in any event, before using freely, to be sure you have sufficient carbon in some form in the soil to keep pace with the growth of plant produced. The invariable effect of excess of stimulants (when the plant is able to endure them) is foliage without fruit, or fruit only in such proportion as fruit-producing material may accompany the stimulants.

Care of Young Fruit Trees.

Young fruit trees, for the first two or three years after transplanting, should before hard winter sets in be protected against any undue quantity of water, especially in low situations. This can be best done by making a small hillock of dirt around the stems sufficient to throw off the water and not let it settle about the roots. We have known young trees to be killed by constant immersion in water through most of the winter, and have frequently known them to be stunted, from which many of them never entirely recovered. On the other hand, in summer these trees should have the soil lightly bowled out around them, in order that they may have a more abundant supply of water than they would otherwise obtain. If we expect to be successful in fruit-raising we must adopt all the means attainable to insure it.—*Germantown Telegraph.*

How to Make Trees Fruit Early.

The *Vineyard Gazette* reports cases where the removal of earth over the roots of trees hastened the period of ripening of the fruit several weeks. In one instance earth was removed from an early pear tree eight weeks before the normal period of ripening, for the space of thirteen to fifteen feet in diameter, and to such an extent as to leave depth of earth over the roots of only about two or four inches, so they could be thoroughly warmed by the sun. The experimenter was surprised not only by the ripening of the fruit in the middle of July, but also by its superior juiciness and flavor. In another experiment the removal of the earth from the north side of a tree alone caused the fruit on that side to ripen several days earlier than on the south side.