

The Hindoos, by availing themselves of the power of radiation, are able to collect flakes of ice in their tropical climate, when the temperature, as shown by a thermometer suspended but a few feet above the shallow ponds, has been all night long 4° above the freezing point. But as facts are of more avail than many words, we give the results of experience and observation, showing that low grounds and valleys are not the places where one should plant his orchard. An intelligent Scotchman, residing in this city, who has travelled much in Europe, informed the writer that he noticed that the best orchards, and those that seemed the most productive, were located on side hills, inclining towards the south and east. The sun has much more power in our climate during the summer, than in fruit raising countries of Europe, and indeed, in the southern parts of the Union it is necessary to protect the stems of our fruit trees from the sun. Many cultivators of the peach tree have found that if planted on a site fully exposed to the sun, it blossoms before the spring frosts are over, and endangers the crop. All are familiar with the fact, that a late and cool spring is generally followed by an abundant crops of fruit; and on the contrary, that warm dry weather in April, continued for any length of time, is pretty sure to force the buds into too active growth, and the crop is generally a failure. Again it has been noticed that late blooming apple trees have set their fruit, when the blossom of earlier trees wholly failed of setting a single blossom. It seems then most advisable to plant an orchard, not in the warmest and earliest soils, but in those localities where, if possible, the period of blooming will be somewhat retarded; side hills to be preferred, but on no account if any other location can be had to set them on low grounds. If compelled so to do, let the soil be thoroughly underdrained, and well manured with ashes and muck compost; for cold wet soils almost invariably induce canker and disease, from which a dry soil, and one properly supplied with the elements of a healthy growth, are almost wholly exempt.

Since the above was written we have met with the following, in the address of J. A. MATSON, Esq., before the Greencastle Horticultural Society, Indiana, which we append:

"Another subject on fruit culture, which has always been of great interest, and has become much more so within the last two years, is the destruction of fruits by hard freezing in winter, and by the late frosts of spring. Nearly all the orchards planted by the early settlers of the west, were located in the valleys, and wherever practicable near the margin of

some river or stream of water. This was done under the impression that the effects of the frosts would be neutralized by the fogs arising from the water, and resting over the valleys during the morning; and by the protection afforded by surrounding hills, from the cold winds.

"Fruit growers in the west, after witnessing the repeated destruction of their crops, in the valleys, while the trees located on the bleak tops of the surrounding hills, were bending down with their luscious burdens, have now discarded the theory with which they set out.

"During the last fall, I witnessed a more striking illustration of the comparative effects of frost, on low and high lands, than has ever before met my observation. On the morning of the 6th of September, the temperature became lower in this region than is usual at that season of the year. A few days afterwards, in passing down the Bloomington road, I crossed a long and beautiful interval, between the National road and Cloverdale. The fields along the road, were planted in corn; and in the lowest part of the valley, the frost had killed the blades, the top of the stocks, and the husks of the corn, which were dry and rattling in the breeze, while upon the elevated land, on either side, the corn was green and growing, the effect of the frost becoming less and less apparent, as you ascended on either side. Believing that some of the high grounds around this valley, must be very secure from the effects of late spring frosts, I have made inquiries from some of the earliest residents of the county, and find that there are two orchards in the neighborhood, where the peach trees have borne fruit, nearly every year, since the settlement of the county. I understand there were two other locations in the county, where the frost has been nearly as scarce, one in the neighborhood of New Maysville, and the other near Pleasant Garden. It is my purpose during the coming summer, to examine these locations particularly, as well as another, still more elevated, in the adjoining county of Hendricks.

"Dr. KIRTLAND, of Ohio, a gentleman distinguished alike as a physician and as a horticulturist, some time since applied the test of science to the subject. Supposing that the severity of the frosts in the valleys, compared with its effects on the high lands adjacent, was caused by a current of warm air, rushing up from the low, to the high grounds, as the temperature decreased; stationed himself with a thermometer, lantern and watch, on a night, when a severe frost was expected, on a hill near Lake Erie, where the peach crop had never been killed; while his brother, was stationed with a thermometer, lantern and watch, in the valley below. Each made and recorded observations, every half hour during the night, and the result was as follows: From sun down, until nine o'clock, each thermometer indicated the same degree of temperature. At nine o'clock the mercury in the valley thermometer commenced sinking, while that on the hill, at the same time, began to rise; and the Dr. observed a perceptible current of warm air, flowing up from the valley. At twelve o'clock, the thermometer in the valley indicated 12 degrees lower temperature than that on the hill, and about the same difference was observed until daylight in the morning."