changeableness of the characters in some varieties; how in the cases of the eye and the cells some exhibit them open or closed, or intermediate between the two; also in the interchangeable form of the ealyx-tube and the positions of the stamens. In my classification I have provided against any confusion arising from this cause, and have given additional references when a variety is to be found in more than one division. For example, in Scarlet Nonpareil the eye is sometimes open and sometimes closen, though the calyx-tube is always short funnel-shaped. and the stamens marginal. This variety is therefore placed in class 1, section 2 (\$\$), and division 1 (†); but to provide for the case of the eye being closed, it is entered thus-" Scarlet Nonparel iii., §§, t," showing that it is also found in class iii, section 2, and division 1.

It is important that perfect specimens of fruit be used when the classification is applied, and especially that the eyes be perfect; and, to observe the calyx tube correctly, the longitudinal section should be made directly through the centre.--Journal of Horticulture.

TEMPERATURES IN SETTING MILK.

Mr. Rensselaer Day, a successful butter maker, who lives in the Susquehanna Valley, near Otsego village, Otsego county, sends me the results of some of his dairy experiments during the last season. He is in the habit of weighing his milk at intervals and of setting it in deep pails at a temperature of about 58 degrees. In skimming, he takes off not only the cream, but a portion of the milk, calculating to lower the contents of the pails about onethird. What is taken off is churned in a common dash churn.

June 15 he had 410 pounds of milk and got 23 pounds of butter-an average of 17 pounds 13 ounces of milk, plus five ounces, to make a pound of butter.

June 21 he had 439 pounds of milk and got 25 pounds of butter-an average of 17 pounds 4 ounces of milk to a pound of butter.

Aug. 8 he had 394 pounds of milk and got 21 pounds of butter-an average of 18 pounds 12 ounces of milk to make a pound of butter.

Aug. 24 he had 387 pounds of milk and got 22 pounds of butter-on average af 17 pounds 9 ounces of milk to make a pound of butter.

Ang. 25 he had 411 pounds of milk and got 23 pounds of butter-an average of 17 pounds 5 ounces of milk to make a pound of butter.

Sept. 14 he thought he would try the sudden cooling and low temperature recommended by Mr. Hardin, of Kentucky. He had 373 pounds of milk and cooled it | farm house, on the small estate owned by | studies in silk production ; those at Stock-

to 45 degrees. From it he got 19 pounds of butter-an average of 19 pounds 10 ounces of milk to make a pound of butter.

Sept. 19 he set in the old way. He had 365 pounds of milk and got 211 pounds of butter-an average of 16 pounds 8 ounces of milk to make a pound of butter.

Oct. 8 he had 341 pounds of milk and got 23 pounds of butter-an average of 14 pounds 13 ounces of milk to make a pound of butter.

Of course, one experiment does not settle this question of sudden cooling and low temperature, any more than one swallow makes a spring ; but the loss on the days on which the experiment was tried was remarkable, and sufficient to deter Mr. Day, who is a practical man looking after the best results, from trying I understand that all the conit again. ditions, save the cooling and temperature, were the same as on other days.

I may add that Mr. Day finds his yield very much increased by taking off the top of the milk with the cream and churning it, and that his butter herd is of the Devon breed; that is generally selected for butter making in his section, which affords hilly pastures.

T. D. CURTIS. Syracuse, Dec. 22, 1875.

EXPERIMENTAL DAIRY STATION.

The committee appointed by the New York Dairymen's Association made the following report at the late meeting at Norwich :

Your committee appointed to take into consideration the subject of a proposed experimental station in dairying is gratified to observe that within the past year the subject has more earnestly engaged attention in our own State than at any previous time, and not a few of our most earnest and able thinkers are seeking for more light and inquiring in what way the enterprise may be most surely and successfully inaugurated. The object of these stations is to systematize discovery in the interests of farming. They consist of chemical laboratories connected with the stables, fields, gardens, or greenhouses, where men of high scientific attainments and practical skill are engaged in studying and experimenting in agriculture. And in addition to this, much of the business consists in the analysis of commercial fertilizers for farmers and others.

In the year 1851 a body of Saxon farmers composing the Leipzig Economical Society, realizing that individual experiments were costly, and often unreliable from being conducted by unskilled hands, decided to fit up a few rooms at their

this society in the little village of Broeckern, near Leipzig, for the purpose of scientific investigation. Dr. Emil Wolf, a young scientist of promise, was engaged, and Mr. Baehr was the manager of the farm instructed to superintend the practical detail of experiments. Two or three rooms were fitted up for a chemical laboratory, and with some improved stock and a few farm implements, was established the "first farmer's station for agricultural experiment." So substantial and satisfactory were the results of this first effort, that two years later another Saxon constituency of Chemnitz established the second. In 1852 there was but one; in 1857 there were 11; in 1862, 19; in 1867, 30; in 1872, 62; in 1875, 70,and one in the State of Connecticut. In each of these 71 stations are employed from one to five investigators, trained in the great modern schools of chemistry and physiology.

As a practical result of the far-reaching benefits of these stations, may be quoted the affirmation of the Prussian Minister of Agriculture, wherein he says " that the results of experiments upon the feeding of animals, obtained at a single station, have been of more direct advantage to that country than the entire cost of all the stations up to that time." And as an illustration we present the work of the Halle station for the year 1870, which may be summarized as follows :

Fattening experiments with twelve sheep as to the comparative feeding value of lupines and colesced cake.

Study of the changes which beets and beet leaves undergo in souring.

Continuous culture of sugar beets on the same field.

Testing the quality of the so-called Bestchorn's nchest sugar beet.

Influence of annually renewed use of saline manures on the quantity of saline matters taken up by beets.

Continuation of experiments on the nutritive processes in the milk-giving animal, fourth series-effect of feed on the quantity of milk and its ingredients.

Observations on the temperature of the soil at different depths.

Construction of respiration apparatus, and preliminary trials therewith.

Execution of 776 analyses of fertilizers.

The work of these stations is approximatety divided as follows : Thirteen are principally devoted to cattle feeding, as at Wende, Poskau and Milan; twentyfive to experiments on the conditions of vegetable growth and the action of manures, as at Dahme and Ida-Marienhutte ; several to tohacco and grape culture, as at Carlsrhue, several to grape culture and wine making, as at Wiesbaden and Padu. The station at Vodine is devoted to