NOTES ON AGRICULTURE (V.)

NATIVE PLUMS AND RUSSIAN CHERRIES.

Mr. Hedrich, in Bulletin No. 123 of the Michigan Experiment Station, states that our native plums are coming into prominence. They are three weeks earlier than the European sorts, and of the 150 varieties the De Soto, Wild Goose and Miner are the most promising. They are not particular as to soil and desirable 'because of their immunity from diseases and insects.'

The introduction of cherries from Russia dates from 1882. They are recommended for localities too cold for ordinary cherries. The fruit is reddish black in color, late in maturing and with 'a peculiar astringent flavor which is often very pleasant.'

PINEAPPLE CULTURE.

Bulletin No. 27 from the Forida Experiment Station gives, first of all, a full-page plate of a pineapple field in full fruit. Dr. Washburn, the experimenter, has raised the peculiar fruit crop for nine years, and is convinced that it is profitable and that 'pines' can be grown over a large portion of Florida. The plants need to be set eighteen inches apart each way and abundantly supplied with rich food.

THE FLOW OF MAPLE SAP.

It is natural to expect that nearly every subject connected with the production of food supplies will be considered by the Experiment Stations. The one by Mr. Woods of the N. H. Station is upon the flow of sap in maple trees. It is found that the flow of sap is dependent largely upon the depth of the hole, or 'tap,' and the idea that nearly all the sap comes from the outer wood is erroneous, and that sugar makers may profitably tap their trees to a depth of four inches. It was also shown that there is very little gain by tapping a tree in two places; one deep and small hole upon the south side of the tree is sufficient.

DAMPING OFF.

Professor Atkinson, in Bulletin No. 94 of the Cornell Station, reports at length upon a study of microscopic fungi that work upon seedling plants in greenhouses and destroy them by what is commonly known as 'damping off.' This fatal result is occasioned by great moisture content of the soil, high temperatures, close rooms and insufficient light—all of which favor the growth of the low forms of fungi, causing the destruction of the stems of the seedling. The conditions above given should be as far as possible eliminated. As the moulds, etc., enter the plants from the soil it is evident that the latter should be as free as may be of the germs. Diseased plants need to be thrown away and, in serious cases, the soil likewise. The soil may be sterilized by steam heating before the seeds are sown. Those who would have healthy greenhouse plants must be wise as mycologists and as loving as mothers.

Byron D. Halsted.

SCIENTIFIC NOTES AND NEWS.

THE CONGRESS OF PHYSIOLOGISTS.

As we have already stated, the third *International Congress of Physiologists* will be held at Bern, September 9th to 13th, 1895. Prof. Kronecker, director of the physiological laboratory of the University, has kindly expressed his readiness to afford to members of the Congress all facilities for demonstration and experiment, as well as for the exhibition of scientific apparatus. It is especially wished to have a full exhibition of apparatus, which may be contributed either by physiologists or by instrument makers recommended by members of the Congress. Titles of communications from America may be sent to Professor Frederic S. Lee, Secretary, American Physiological Society, Columbia College, New York City. Professor Bowditch has signified his intention to be pres-