

## BOTANY.

Edited by JOHN CRAIG.

POTATO ROT.—The advantages of spraying potatoes with the Bordeaux mixture for the prevention of potato rot are well shown on the experimental plots now being dug at the Central Experimental Farm. The dry weather which prevailed throughout August and in the beginning of September gave conditions very unfavourable for the development of the parasitic fungus (*Phytophthora infestans*, DeBy.), which causes potatoes to rot; but the advantage, to those plants of which the foliage was kept green for some three or four weeks longer than on the untreated plots, is plainly shown by the far larger crop and the much better tubers. The reason of this is, of course, quite plain. On the untreated plots the leaves—the starch-making organs of the plant—were destroyed by the potato rust (which is merely another form of *P. infestans*) just at the time when they were required to collect and manufacture starch to be afterwards stored up in the tubers. In the case of the treated plants, on the other hand, these organs were preserved by the application of Bordeaux mixture and kept on performing their proper functions for another month, at the time of the year when this was of most importance to the crop; moreover, had the weather been wet during August and September it is probable that, not only would there have been a difference in the size of the tubers on the untreated plots, and consequently in the number of bushels reaped, but a large proportion of these would have been rotten. J. F.

SPRAYING TO PREVENT FUNGUS DISEASES.—Much has been said and written upon this subject since the practice was recommended some six years ago. Much remains to be learned, but great progress has been made, and the orchardist of the future will view spraying to prevent fungous and insect attacks in the same light as bearing upon the success of his fruit crop, as the intelligent grower of to-day does the important operations of cultivating and manuring.

Very satisfactory results have been attained by the horticulturist of the Experimental Farm in treating apples and pears for *Fusicladium dendriticum* “scab” or “spot”, and *Monilia fructigena* “soft rot” on plums and cherries. A comprehensive series of experiments was