

because the water is very cold. This may sometimes be remedied by cutting a ditch along the border, and drawing off the cold, icy spring water, or gathering it into a reservoir, where it will be warmed by the sun and air before it reaches the plantation. The soil must not be too rich. The vines may grow in good alluvial soils, and seem very flourishing but they will not bear fruit. Clay and marl are wholly unsuitable, and heavy soils in general are not adapted to the growth of this plant. Air, water, and pure sand form its food, and where these can be had in suitable combination it will thrive best.

Cranberry cultivators say that the best soil is beach sand. This is the soil of the celebrated Cape Cod cranberry plantations, either naturally, or supplied artificially. The sand is light and porous, admitting air and moisture freely to the roots of the vines, while weeds and grasses, which would choke them, can not grow in it. When beach sand can not be had, any clean sand—the more free from all mixture of vegetable matter the better—may be used. Some have found pure gravel—the cleanest is the best—to be a good substitute for sand. Next to beach sand is peat, and this is almost always present in wet ground. The peat requires some preparation before it is fitted for cranberry culture. The top turf requires to be taken off to a depth sufficient to remove all roots of grasses and weeds, and the bared surface left exposed to the action of the frost and weather for one year. This treatment will make it light and porous, preventing that caking and cracking which is sure death to the cranberry. Where the soil is not naturally either a sand or peat, and the location seems otherwise well-suited to the cultivation of the cranberry, it may be possible to supply pure sand or gravel. After taking the turf off from the beds to a depth that will remove all the roots of grass and weeds, the bared surface may be covered with sand to the depth of four or five inches or with gravel to about half that depth.

Overflowing the beds can be very easily effected if the arrangements in the way of dams already suggested have been provided. About the end of October is the proper time to let in sufficient water to overflow the plantation to such a depth that the water will not be frozen through to the ground during the winter. The water should be allowed to remain until such time in the spring, usually in May, as the weather becomes mild and vegetation commences, when it should be drawn off just to the tops of the vines. This will give the plants the benefit of the increased warmth of the weather, yet at