

fertility and be a soil robber by growing grain without feeding the soil in some way. Different plants are being tried with varying success. They require the soil to be full of decaying roots to make humus and so bind the soil, reducing its drifting to a minimum. The ground

after seeding is now almost invariably left rough, in order to prevent the soil drifting, so that the use of the roller, unless followed with a harrow, would be a positive injury. In my next letter I will treat of Alberta and British Columbia.

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The Exposure of Orchards.

The exposure or aspect of the land is a matter of important consideration when deciding upon the site for an orchard. Considering the great difference of opinion that exists among fruit growers on this question, it is easily seen that no one can state definitely the correct exposure. It must be decided by climatic and local conditions and by the class of fruit which is to be planted. Regarding the different exposures for the different fruits, Downing remarks as follows: "Apple orchards flourish best in southern and middle portions of the country on north slopes, and often on the steep north sides of hills, when the climate is hot and dry. Farther north a south or southeast aspect is preferable, to ripen the crops and the wood more perfectly. The cherry will bear a great variety of exposures but, in deep warm valleys, liable to spring frosts, it is, however, well to plant it on the north side of hills, in order to retard it in the spring." For pears he advises planting on a southern slope in cold climates and for peaches, a northern exposure. Bailey discusses the aspect under three generalizations:

1. "In locations adjoining bodies of water the best slope is towards the water." By this means the full benefit of such an exposure would be obtained. Where practicable, locate on the side of the water that

slopes away from strong prevailing winds.

2. "In interior or frosty regions, the best slope for the tender and early blooming fruits, as a rule, is one which retards the blooming period, thereby causing the plant to remain comparatively dormant until after the incidental spring frosts are passed." This favors a northward slope especially for such tender fruits as the peach. The warmer exposure of a southern slope may hasten the swelling of the buds which often occurs during a warm spell in spring. Such a premature swelling of the buds would be a decided injury to the orchard especially in the advent of a subsequent freezing. On the other hand, an exposure to the north, by retarding this early spring growth, would permit the orchard to escape uninjured. Some growers claim that what is gained by delaying growth in spring may be lost by the imperfect ripening of the wood in fall. This has never been proven although a too-pronounced northern slope may have this tendency.

3. "If one desires to secure particularly early results and bright colors of fruits, a warm and sunny exposure, to the southward or southeastward, is most desirable." The benefit of earliness and quality of fruit from a southward slope may be overbalanced by the disadvantages of such an exposure as