

Approaching the pole more nearly, the tree becomes the shrub, and finally the shrub dwindles down until the whole of vegetation consists of a few species of Lichens, Mosses, and the Red Snow Alga is alone left to bedeck the wide wastes of ice-covered plains.

Such is the birds-eye view of the Geography of Vegetation, highly interesting in itself, and a thousand times more so when viewed in its relations to the animal kingdom. In our next, we shall enter upon the practical subject of the cultivation of plants.—*Wisconsin Farmer*.

THE GRAPE VINE.

BY THOMAS BAYNES, OF BALTIMORE.

SOIL.—The natural soil most congenial to the growth of the vine, and the perfection of its fruit, in this country, is a light rich sandy loam, not more than eighteen inches deep, on a dry bottom of gravel or rock. No subsoil can possess too great a quantity of those materials; for the roots of the vine run with eagerness into all the clefts, crevices, and openings in which such subsoils abound.

In these dry and warm situations the fibrous extremities pushing themselves with the greatest avidity, and continually branching out in every possible direction, lie secure from that excess of moisture which frequently accumulates in more compact soil.

It may hence be inferred, that vines will not flourish in a cold wet soil, nor in one composed of a stiff heavy clay. In preparing the border then, the first thing is to secure a dry bottom. If the soil and subsoil be naturally such as described above, as most congenial to the growth of the vine, nothing more is required than to trench the ground three feet deep, and two feet wide, and place in the bottom of the trench six inches of bones, horns or hoofs; clean it of all weeds, and it will be in a proper state to receive the vines. The trench should incline a little, to carry off the surplus water.

MANURES.—As a border in which vines are to be planted ought never to be disturbed after having been once properly made, it follows that those manures that can be applied with advantage to promote their growth, comprehend—first, such as can be mixed and incorporated with the soil at the formation of the border, and which add to its fertility from time to time, according to the respective periods of their decomposition, and amalgamation with it; and secondly, such as can be applied in a liquid state or otherwise as a top-dressing at any subsequent period. Of those manures, therefore, that may be mixed with the soil when the border is first made, the best are such as possess the two valuable qualities of affording to the roots of the vine, the highest degree of nourishment combined with the greatest permanency of duration. Of this description are bones, horns and hoofs of cattle. Every variety of size may be procured from the smallest bone of a fowl, to the largest bone of an ox. For the purpose of top-dressing, soap suds should be used as fresh as possible, in order that their good qualities may be preserved entire.

PLANTING.—The best time of the year to transplant a vine is immediately after the fall of the leaf. The ground in which it is to be planted must be prepared agreeably to the directions given above; this being done dig a hole for the reception of the vine about two feet deep, and of the same width and length; and if, after the plant is taken up, its roots should prove too long for this, the size of the hole must be increased, as, on no account must the roots be crippled in their extension.

Loosen the sides and bottom of the hole, and to the soil that is taken out, add a couple of spits of well rotten dung, and mix the whole well together, making it very fine. Put the mould into the hole again to within nine inches of the top, and it will be ready to receive the vine. This must now be carefully taken up, with its roots as entire as possible, and if any of them be bruised or in any way injured, they must be pruned back to the sound parts. Fix the vine in the hole with its stem about six inches from the wall, and let the bottom bud be just even with the surface of the ground. Spread the roots out in a horizontal direction, at equal distances from each other, and in a similar manner to the spokes of a fan, then fill the hole with the mould nearly to the top. Take hold of the stem and drawing it upwards a little, give it two or three shakes with the hand, that the mould may settle well around the roots; after which fill