aphids by using their diseases, and perhaps growers of the future may be spraying or dusting disease spores for aphid control with less cost, and better effect, than now obtained by nicotine.

---

Potato Growing in Ireland

JOHN M. RATH, Clogerhead, County Louth, Ireland.

NOTE—The following information on potato growing in Ireland was presented in a letter from John M. Rath of Clogerhead, County Louth, to Dr. Wm. H. Martin. Mr. Rath discusses the methods employed by the best growers in Downs and North Louth, or the Cooley Area, and the older style generally used in Ireland.

The old or general rule is to have the potatoes in land that has given first a crop of barley, laid down to grass for one or two years, ploughed and a crop of oats grown, and then prepared for the potatoes—ploughed in November, if possible. If the weather is suitable, the land is prepared for drilling in the beginning of March; when a fairly fine tilt is obtained the drills are “opened” 29 to 30 inches wide, no matter whether it is light or heavy land (light land is sandy loam, heavy land is the stiff clay soil). The farmyard manure is then carted out and spread in the drills. The seed is dropped 12 inches apart on top of the manure, and as a general rule the seed is all “cut.” The drills are then “closed” by the drilling or double plow. These drills are from 10 to 12 inches deep. A plow is used in each furrow or alley then and the tops of the drills harrowed down to allow the “sets” to come up straight and to check weeds, this would be in three weeks or a month according to growth and conditions. There is weeding then, and first clay is put to them, and another sod is run in the valleys with the plow or gruber. Lately some of the more advanced growers shake some chemical manure in the alley before the clay is put up to them. Some of them spray, but it is not general except in the real potato districts. One more claying or moulding and they are finished until “lifting” time in November. I may say that one of the causes of not spraying is the large quantity of “Shamrock” potato that is planted and which does not require spraying.

This is the general rule and the area planted by the different farmers or growers would only amount to one or two Irish acres. Where they can get seaweed, as here, they have a different method. The sets are stuck down with a spade in the drills,
or dropped and covered by shoveling, and the seaweed, sometimes whole, and generally mixed with farmyard manure, is put on top and closed up in the ordinary way. Now in Cooley and the Mourne district of Down they have quite a different method. The soil in both countries is "light," very "light" in Down. Their drills are from 22 to 24 inches wide; in Cooley 26 is the rule. In both places artificial manure is used, without anything else. Years ago they used seaweed, and planted boulders on the shore to grow the weed, and took the different lots by auction. Some of the growers even carted stones down from the mountains 9 and 10 miles to the shore for this purpose. Very few of them do it now, but use chemicals instead. They set their seed 14 to 16 inches apart, and instead of closing the whole drill on top of them, they run a plow on the top of each drill and throw in half of it on the sets, covering them with clay to a depth sufficient to protect them from a heavy frost. To do this to suit the subsequent tilling, the drills must be taken in plans of 10, 20, or so; this is called "tipping." The reasons for it are—to enable them to put on the chemical manure without destroying the seed: the few inches of clay saves the seed, and of course they put it on heavy, from 16 cwt. to 18 cwt per Irish acre. The reason why they "tip" in plans is due to the fact that when the potatoes are about to come through the tipping they shake the chemical manure on the drills or the half drills as they are then. To cover it they throw the remaining half drill across on top of the space the seeds are planted in. To have this done evenly when tipping, say you take a plan of ten drills counting the alley or furrow, not the ridge. You walk the horses on the ninth ridge and come back on the first, finishing in the center by doing a bout on one ridge. That is, taking two sods of the one ridge or drill. This leaves the way clear for the covering of the chemical after, as in that operation you start where you finished tipping, and throw the remaining half drills opposite to how they were tipped, as the first half of the 9th ridge was thrown right tipping. Facing same way in the second operation it has its remaining half thrown left. This is called "rising," as it brings back the drills to their first shape and it is great tilling. Generally a lot of weeds have sprung up and the plow cuts them away and smothers them up. To finish the description, it is a case of giving the ground two additional plowings, destroying weeds each time instead of pressing the drill with the double plow which is now used as a tiller. These people run the plow in the alleys and harrow down same as the other men, and carry on the same until lifting time, except that they spray at least twice. The plow going through the alleys takes the place of your cultivator, except it is much slower.