bushels are usually allowed to an acre, but this varies from two to five bushels. When *stable manure* is applied to the beans, it is usually laid on in Autumn and ploughed in.

The after treatment of the crop depends upon the system of culture pursued, *drilled, or broadcast.* When drilled it is horse and hand hoed, these operations beginning so soon as weeds make their appearance, and continuing until the height of the plants point out the propriety of *stopping. In strong clay* soils, the rows should be wide apart to allow freedom in horse hoeing.

A very good way of sowing beans in wide intervals, consists in drilling the land *with one furrow of the common* plough, sowing the beans by hand, which fall into the hallows, and then reversing the drills, or harrowing the field across. In any method of spring sowing, the land must have an *early winter furrow.* In the wide drilling system two more furrows will be required in the Spring, as soon as the state of the weather will permit. When the seed is dibbled at narrow intervals, the winter furrows must be well harrowed. (*Donaldson*).

In the culture of beans artificial manures have been found of great value. They naturally delight in a calcareous soil, and where the soil is not naturally calcareous, lime ought to be freely supplied. Mr. Huxtable has suggested as an excellent *artificial preparation for beans, a manure* containing 10 bushels of lime, 2 cwt. of superphosphate of lime, and *5 bushels of* salt and ashes. Where lime already exists abundantly in the soil guano may be *applied with the best effect.*

The Irish method of bean culture, as detailed by Mr. Carroll, is as follows: The land designed for beans is that in which there had been previously a grain crop; and *sometimes the land* selected in meadow or pasture land "ploughed out the lea," in September, or October or November, into beds from 4 or 5 feet wide, on which is laid from 10 to 40 tons of farmyard dung or *compost of* sea-weed, road-scrapings, &c., to the Irish acre. When this is spread on the ploughed land (it *sometimes* is on the *un*ploughed land), it is then either lightly covered, with a couple of inches of earth, *either* from the furrow or other beds according to convenience, or it may remain uncovered; the *seed is then, in* November or December, sown broadcast at about 20 stones per Irish acre, and covered from the furrows like the planting of potatoes in "lazy-beds," and generally left so till the crop is fit to *cut in* August or September following.—The produce varies from "5 to 20 barrels per acre," according to the goodness of soil and favourableness of season. The kind thus grown in Wexford (where alone beans are grown to perfection in Ireland) is called the Wexford Bean; in character it is something like the Russian or Winter Bean of late introduced into Ireland.

The Baron de Lafontaine has given an interesting detail of the introduction of the drill system of bean growing to Belgium, in which he not only illustrates its benefits, but gives valuable hints as to the practical details of the system.

"It is a question (say he) whether the drill culture of beans, as producing the greatest amount of seed, would not be preferable to the broadcast system, so long pursued in Belgium, and it is to this point that we wish particularly to direct attention. Sir John Sinclair reports, in his treatise on practical agriculture, an experiment made on three-fifths of an English acre, of which one-half was sown broadcast, and the other half in drills. It was found that, independently of the economy of the seed sown, the produce of the crop was greater in the drilled portion than in the broadcast, in the proportion of 11 to 9. The same field being sown with barley in the following year the crop was still more considerable in the drilled part, in the proportion of 34 to 27. This trial was made about 30 years ago, and from the publicity given to it has much contributed to the establishment of that system in England. The adoption of drill cultivation in general belongs to a period that is fast approaching. If with our neighbours in Great Britain its advantages are no longer disputed, we have the satisfaction also to know that with our progressive farmers in Belgium, a lively prejudice exists at the present time in its favour. It is even probable that in due time the application of this method will become the common rule. Can we indeed doubt that it will be so, when we reflect that broadcast sowing is a simple imitation of the procedure of nature, while the drill system constitutes its perfection.—Amelioration of the soil, destruction of weeds, increase of crops, and diminution of the chances of failure, are the results of this method. Are such, it may be asked, the results of the broadcast system? Assuredly, it produces neither amelioration in the soil, increased amount of crop, nor any of the advantages just specified; neither does it allow, either uniformly or completely, the object generally assigned to bean cultivation, namely that of a cleansing crop. To merit that character it ought to effect the complete destruction of weeds. Now this case never occurs under the broadcast plan of sowing; for a great number of plants, especially the Sow-Thistle, obstruct, and, their reproduction, deteriorate the subsequent crop.

"We may remark, that we are here speaking of circumstances attending bean cultivation, when entirely successful, under the system in question. But what happens when the crop is short, or altogether a failure, a result which occurs at least five times in ten years? In such case we have to wait for the rotation of a root-crop to repair the evil caused by the practice of a vicious system. If it be asked, whether beans under such condition can be regarded as a cleansing crop, I reply that they cannot, if we persist in the broadcast system of sowing them; but that they may be regarded in that light, if we adopt the drill cultivation. The field selected for trial was deeply ploughed at the end of the year. In Spring it was divided into three parts, on two of which a good supply of manure was lightly ploughed in. At the time of sowing, one of these portions was sown broadcast in the usual manner; the other in drills, in the same manner as in potato planting, namely, by placing the seed in every other furrow, and covering it by means of the plough—a plan it was thought best to adopt as being the simplest that presents itself to the farmer who is not in possession of improved implements. The remaining part of the field on which no manure had been applied, was farmed in high ridges, according to the Scotch method described by Low; and the beans being sown in the hollows between the ridges, at a distance of about 24 English inches, the manure was placed upon the seed, and then covered in by a second plough, which passed through the middle of the ridges; in this manner the formation of the ridges, the sowing of the beans, and the placing and covering in of the manure, were executed at one and the same time. "The sowing of this portion was executed by hand. A few days before the beans came up, the whole of the three divisions of the field were equally harrowed. As soon as the plants were 4 inches out of the ground, hoeing was commenced, and was always executed in the same manner in the two drilled sections of the field. This operation ought to be repeated three or four times, with an interval of a few days between each, and always in a different direction, that is to say taking care to turn the soil back to the stems of the plants, when, by previous hoeing, it had been turned up in the middle of the interval between the rows. The last earthing up, which is effected by a skim-hoe, adapted to this implement, ought to be executed before the first flowers of the bean make their appearance, as the passage of the horse or implement might easily brush them away from the plant. These weeds between the rows which have escaped the hoe may be removed by the hand. The extraordinary development of the stems and shoots soon raises the plant to a foot in height, the ground becoming covered in a short time with a thick shade which maintains it in a state of suitable humidity during the remainder of the season. The reaping should be effected by the sickle in order that the work may proceed row by row; the em-