

nel Islands breed. As a rule, it has been found that the best returns have been obtained in the latter summer or early autumn months, when we have results of 1 lb. of butter to 20 lb. of milk (Ayrshire breed); 1 to 19 (breed not stated); 1 to 19½ (Irish breed); 1 to 18½ (Ayrshire); 1 to 17½ (Ayrshire); 1 to 16½ (pure Kerry); and even 1 to 16 (Short-horn). This latter, no doubt, was under exceptional conditions. In all probability the average butter yield of our dairies is about 1 in 30, ranging between 25 to 35 lb. of milk to 1 lb. of butter.—*Professor John Wilson's Official Report of the Agricultural Exhibition at Aarhus.*

### HARVESTING HOPS.

As soon as they show the seed fully formed and the pollen plentiful at the base of the leaves, and the seed begins to assume a grayish-blue color, hops are fit to harvest.

The picking is done by girls or women, attended by boys or men, who cut the vines about eighteen inches from the ground, and raise the poles, laying them in a convenient position over or near the boxes to receive the hops. The boys also collect the hops when picked, and carry them to the kiln. Many plans are used in picking. One great object is to jar and shake the hops as little as possible before they are laid on the kiln. This is best attained by using small boxes, four feet long, twenty inches high, and the same depth, and having handles at each end. Each picker then has her own box, and the boxes being numbered, careless picking may be detected, and the hops may be carried to the kiln without being handled or disturbed. A box of this size will hold hops that, when dried, will weigh about ten pounds. The pickers are paid by the box, and a good picker, under favourable circumstances, will fill two boxes a day. Few will do more, and only good pickers can do that. If many children are in the yard the average will not exceed one box per day per hand. The poles are stacked as fast as unloaded, and the boxes, as fast as filled, carried to the kiln.

The size of the kiln will depend on the number of hands employed. The hops should be dried as soon as possible. For a ten-acre yard, employing fifty pickers, a kiln twenty-five feet square is small—thirty feet would be better. The drying floor, made of slats, on which a hempen cloth made for the purpose is stretched, should be nine feet at least, (better twelve,) from the floor on which the stove stands, and a hopper-shaped casing should be made between, thus confining the heat, and leaving the stove room (outside the hopper) cool. The stove may be enclosed with brick walls, each wall ten inches or so from the sides of the stove, except at

the stove door, and rising three and a half feet high. From each upper corner of this furnace chamber, a timber (like a rafter) may be set against the corner of the drying floor, and timbers between, which may be boarded over, and plastered over the boards. The stove-pipe, long enough, and turned enough, for economy of heat, should enter the chimney below the drying floor, inside the hopper (accessible by a trap door,) and the chimney be securely built against one side of the kiln. Such a kiln, twenty-five feet square, with a stove burning four-foot wood, using hemlock, will dry from twenty-five to forty boxes at a time in twelve hours.—Of course the kiln is going night and day, but for convenience it is better to have, if possible, two kilns.

The kiln must be well ventilated.—Cold air admitted under or near the stove and ample openings in the roof and sides above. These are to be left open, unless on the windward side, until most of the steam has passed off. The side openings above may then be closed, and when the hops, unturned and undisturbed, are so dry that the stems and leaves are crisp, (or break short,) they are dried enough and may be taken to the storage loft, where they lie spread until cool, and are then shoved into a heap to lie some days or weeks, before pressing. It should be noted that "clean picking" is of the highest importance. No leaves, or stems, or dead hops should go in. No one can prevent pickers putting in some, but constant watchfulness should be exercised and all careless pickers at once admonished, and if necessary, dismissed. The best crop of hops may bring an inferior price on account of careless picking.

The screw press is now in general use, to the exclusion of the old-fashioned lever and pulleys. Its construction is simple. There is a box with movable sides, (on hinges) the size and shape of the bale. Into this the hops are tramped, and then they are compressed as tightly as possible by forcing down the movable top of the box with a powerful screw. A very heavy frame is required, and some little contrivances are needed which there is not time to describe here. The beginner had better copy the simplest and most effective press to which he can get access, and add such improvements as his mechanical talent may suggest. The tighter the hops are pressed, generally speaking, the better they will look, and the better they will keep. The bales, too, should be neat in appearance, with good straight lines and square corners.

The hops being then ready for market, the grower will find it a very difficult part of the business to dispose of them properly. The market is very uncertain, very changeable, and most of the dealers are as "uncertain" as the market. Every producer will have to learn for himself

when and how to sell. When a fair price is offered at home it is generally best to take it. If not offered a fair price at home, the grower had best find some honest commission merchant, not specially a hop dealer, to whom to consign his crop. As a general rule more is lost, however, by holding too long, than by selling too soon.—*Rural Annual.*

### BRAINS? OR HANDS? BOTH ARE BEST.

"Farmers have brains as well as muscles, and the exercise of the former is quite as necessary to success in their profession as the latter. Many, perhaps the mass, of our farmers exert their muscles at the expense of their brains. Now who is the most successful? Is it the intelligent, wide-awake man, who keeps posted up with the times, or is it the hard-working, manual labor man? The man who makes it his business to be constantly delving on his farm, is likely to lose much more than he will gain." To corroborate the above it is only necessary to look around and see who are the prosperous men of the day. Notice who wins the premiums at the Fairs, and find if they are men who work with their laborers from light till dark. The best farmers in England rent land from the aristocracy, paying more for it per annum than would buy the same quantity and quality here. Do they labor with their hands? They oftener ride on horseback than walk round to their workmen, and attend all the weekly grain markets and monthly cattle fairs, even when they may not want to buy or sell, for the sake of keeping a clear knowledge of what prices are being obtained. They also indulge in field sports. The tenant joining in the chase is frequently seen to pass his landlord, and go by every lord, earl and duke in the field, his horse, perhaps of his own raising, taking leaps which daunts the courage of some of the nobles, mounted on three or four thousand dollar hunters. He will take more premiums at the Great Agricultural Exhibitions than the land-holders, and rise after dinner and argue for liberal leases and the justice of the landlords assisting to make permanent improvements, &c. Compare the pale faced, spare fleshed American farmer with the rubicund countenance and jolly bearing of the English one. Do here, as there—employ more capital, keep more live stock, crop the land continually, for with sheep and turnip husbandry, and a systematic course of cultivation and rotation cropping, no fallows, no idle land, and none exhausted will exist, as with plenty of animals to consume and make dung, the more the land is cropped the more there is to go back on it again, the larger and heavier the produce is, and consequently the richer the soil becomes.