

a combination of milk, butter, cheese, and beef, do not exist, and cannot be bred for this purpose; that they must, in order to prove profitable, be bred for a special purpose; that is, either for a great yield of milk only, or for butter, or cheese, or beef, as either may be required. Now for farms devoted to a special product, special-purpose cows will undoubtedly be the best sort of stock; but the great majority of farmers are not thus engaged, for they grow grass, grain, and roots, and they must keep such a class of cows as most profitably consume these in combination, and yield them in return milk, butter, cheese; and finally, when dried off and cheaply fattened, a good quality of beef.

The early short-horn breed of cows eminently excelled for the general purposes of the English farmers, till beef and fancy points in them paid better than dairy products; then, such as were recorded in the Herd-book began to be bred more generally for the former rather than the latter purposes, but there are thousands of unrecorded cows still kept in the Northern counties of England that still excel as general purpose animals, and few others except these are kept by the numerous tenant farmers there. (1)

Recently such milking families of herd book recorded cows, as have been preserved are being multiplied in England by the short-horn breeders, as they are now finding out that such strains are the most profitable for them in many instances. This is also getting to be the case in America, and except on those farms and vast plains bordering the Rocky Mountains, where the production of beef alone is the object, the general-purpose cow is the one preferred.



Well-Grown Pot Vine in Bearing.

In the same way the beautiful Devons and the red polled Norfolk and Suffolk cows are bred both in England and in America, while the noble Guernseys have always excelled, and in consequence of this they are likely, as multiplied, to become the most popular of all breeds amongst us, except the milking families of short-horns. The red polled cows may also come in the first rank as fast as their merits become known.

R. N. Y.

A. B. ALLEN.

(1) Except in the few counties where the Devons, the red-polls, or the Herefords are bred and reared, the shorthorn is the farmers' cow all over England. Even in Gloucester, the next county to Hereford, the dairy-cattle are all shorthorns.

A. R. J. F.

Hay for farm horses.

Inquirer asks—“What is generally considered to be a fair quantity of hay to give farm horses at ordinary work, such as carting, &c.? I find my carter says he cannot do on less than 30 lb. each daily. Is this an excessive quantity, or is it only a fair average? The horses seem to want it and would eat a good deal more if they had it. I have always up to the present managed to limit to 20 lb., but now it seems impossible. I may mention that they have no other food except 2 gal. of good oats daily.

Referring to the 115 rations enumerated in Mr. J. C. Morton's paper on the “Cost of Horse Power,” in vol. xix of the Royal Agricultural Society's *Journal*, we find that in upwards of eighty cases wherein hay is specified as an item a few give it *ad lib.*—with oats, about 120 lb. a week. (1) Many give a mixture of hay and straw, half and half, *ad lib.* in like manner. Where the quantity is specified, it varies from 42 lb. to 168 lb. a week, and, in one case, where noth-



Well-Grown Nectarine in Bearing.

ing else is given, 294 lb. is named as the weekly consumption. Many give no hay whatever. Mr. J. Coleman gave 84 lb. of oats and 16 lb. of beans, and straw *ad lib.*, weekly; M. T. P. Dods, 95 lb. of oats, 56 lb. of roots, and straw *ad lib.*; Mr. M. Sandford, of Dover, gave 56 lb. of hay, 42 lb. of oats, 80 lb. of carrots, 20 lb. of bran, and straw *ad lib.*; Mr. Sowerby, of Aylesbury, gave 105 lb. of oats, 28 lb. of beans, 7 lb. of oilcake, and straw *ad lib.*; Mr. Morton, 126 lb. of oats, 350 lb. of carrots, and straw *ad lib.* These were all winter rations. Your allowance of hay is excessive.

(1) Surely a misprint! 80 lbs. of oats a week are enough for any ordinary farm-horse. (I see!—the omitted comma makes it all right.)

A. R. J. F.