

Fourth Duke of York, roan, calved Dec. 22, 1846; got by 2d Duke of Oxford; dam Duchess 51, for 500 guineas to Mr. Bell for Gen. Cadwalader of Philadelphia. Thirteen bulls and bull calves brought £2,494 16s. being an average of £191 18s. each—\$926.

COWS AND HEIFERS.—*Duchess 66*, rich roan, calved Oct. 25, 1850, got by 4th Duke of York, for 700 guineas to Col. Morris, President N. Y. S. Ag. Society. *Duchess 59*, roan, calved Nov. 21, 1847, got by 2d Duke of Oxford, for 350 guineas to Jonathan Thorne of Dutchess county. *Duchess 64*, red, calved Aug. 10, 1849, got by 2d Duke of Oxford, for 600 guineas to Mr. Thorne. *Duchess 68*, red, calved Sept. 13, 1852, got by Duke of Gloucester, for 300 guineas to Mr. Thorne.

There were 49 cows and calves sold, which brought £6,867, making an average of £140 2s. 10d. each, upwards of \$680.

On the following day the sale of sheep took place. Eighteen pure Southdown rams and ram lambs brought £326 10s.; 79 lots of ewes, wethers and wether lambs, £2,176 5s.—together, £2,502 15s.

The Cochlin Chinas followed. The 64 lots realized £340 4s. "Sir Robert," the celebrated prize bird, fetching 27 guineas; Lord Ducie gave 40 guineas for him in February last.

HIGHER PRICE STILL.

The Mark Lane Express of Sept. 5, states that Mr. THORNE of Dutchess Co., has purchased the celebrated bull "Grand Duke," of Mr. Bolden, near Lancaster, for the large sum of \$5,000. This bull was purchased by Mr. B. at the great Kirk-leavington sale of Mr. Bates' Short Horns. He was the sire of the "Duke of Gloucester" and "Dutchess 66," alluded to above as having been purchased by Col. Morris and others.

A FEW HINTS ON BUDDING, OR INOCULATION.

Budding or *inoculation*, is one of the most general, and, in this country, by far the most important method of summer propagation. This operation consists in removing a bud from the variety to be propagated, and inserting it on another which is called the stock. Its success depends upon the following conditions—In the first place, there must be a certain degree of affinity between the stock and the parent plant from which we propose to propagate. Thus, among fruit trees, the apple crab, pear, quince, mespilus, and mountain ash, all belong to the same natural family, and work upon each other. The plum, apricot, nectarine, peach, and almond, form another natural division, and work upon each other. The cherry must be worked upon some kind of cherry, and currants and gooseberries go together. In general practice the apple is worked either upon apple seedlings, which are called free stocks, or upon the doucain or paradise, which are dwarf growing species, and are used for the purpose of making small trees. The pear is worked either upon pear seedlings, which are called free stocks, or upon the quince, to make dwarfs; occasionally it is worked upon the mountain ash and thorn. But it must be borne in mind that while all varieties succeed on the pear seedling, a certain number fail entirely on the other stocks we have named. Lists of such as succeed particularly

well on the quince will be found in any practical work on the subject. The cherry is worked either upon seedlings of what is known as the mazzard, a small, black, sweet cherry, that forms a very large robust tree; or, for dwarfs, on the Mahaleb, or perfumed cherry, which is a small tree with bitter fruit, about as large as a common pea.

In the second place, the buds must be in a proper state. The shoot, or scion budded from, must be the present season's growth, and it should be mature—that is, it should have completed its growth, which is indicated by the formation of a bud on the point, called the *terminal bud*, and the buds inserted should all be wood buds. On a shoot of this kind there are a number of buds unsuitable for working; those, at the base, being but partially developed, are liable to become *dormant*, and those on the point, where the wood is pithy, perish. The ripening, or maturing of the buds, must regulate the period of budding, so that the time at which any given tree, or class of trees should be worked, depends upon the season, the soil, and other circumstances which control the ripening of wood. In our climate, plums usually complete their growth earlier than other fruit trees, and are, therefore, budded first; we usually have ripe buds by the middle of July. In some cases, when the stocks are likely to stop growing early, it becomes necessary to take the buds before the entire shoots have completed their growth, and then the ripe buds from the middle and lower parts are chosen. Cherries come next, and are generally worked about the first of August. The buds *must* be mature, or a failure will be certain.

In the third place, the stock must be in the right condition—that is, the bark must lift freely and cleanly from the wood, and there must be a sufficient quantity of sap between the bark and wood to sustain the inserted bud and form a union with it. Stocks, such as the common sorts of plum, pear, and cherry, that finish their growth early, must be worked early; while such as the peach, quince, wild or native plum, mahaleb cherry, &c., that grow late, must be worked late. If these stocks that grow freely till late in the autumn be budded early, the buds will be either covered—*drowned*, as it is technically called—by the rapid formation of new woody substance, or they will be forced out into a premature growth.

A very great degree of sappiness, in either the stock or bud, makes up in part for the dryness of the other. Thus, in the fall, when plum buds are quite dry, we can work them successfully on stocks that are growing rapidly. This is a very fortunate circumstance, too. Young stocks with a smooth, clean bark, are more easily and successfully worked than older ones, and when it happens that the latter have to be used, young parts of them should be chosen to insert the bud on.

In localities where buds are liable to injury from freezing and thawing in the winter, the buds are safer on the north side of the stock, and when exposed to danger from wind, they should be inserted on the side facing that the most dangerous wind blows from. Attention to this point may