

thousand. We are probably, within the mark, when we hazard the opinion, that there were between fifty and fifty-five thousand visitors present. It would be premature to institute any comparisons, based upon statistics, between this and preceding Exhibitions. It is sufficient to say, for the present, that it far exceeded general anticipations; that it was well arranged, well sustained, and was a flattering and cheerful exposition of the progress of the country in wealth, industry, and civilization.

The Wheat Crop.

(Continued from Page 618.)

Of the red varieties, the following are those generally preferred:—

Burwell.—Straw long, stout, and coloured; ear large; chaff coarse and deep coloured; grain long-shaped and dark; sample generally good; large cropper, and very hardy.

Browick.—Straw long and stout; ear bold and full; less colour than the foregoing; grain short, plump, and well shaped; skin moderately thick; very productive and hardy; sample generally classed among the finer varieties.

Bristol.—Very similar in character to the Browick; straw long; grain rather coarser and longer; very hardy, yield generally good; sample inferior.

Clovers.—Straw long; grain and chaff stout, but of a lighter colour than the preceding; sample fair; good cropper.

Hickling's Prolific.—Straw long and stout; ear large, and of a compact square form; grain short and roundish, of a deep yellow colour; chaff white; yield large, but of inferior quality.

Kessingland.—Ear large, dark yellow colour; somewhat coarse, but very productive.

Lammas.—One of the best varieties of red wheats, grain dark coloured, plump, and fine skinned; straw stout and clean; should be cut early, to prevent shelling; sample good, and liked by the millers; fair cropper.

Piper's Thickset.—Straw short and tough; ear square and compact, tapering towards top, with awns which gradually fall off when fully ripe; grain round, and redish in colour: sample fair; yield large.

Spalding's.—Straw long and stout; hardy, and very prolific; grain large, oblong shape; good average quality.

Velvet or Woolly-eared Bearded.—Ear long, dark red colour; grain large flinty, and coarse; chaff hard and close; difficult to thrash unless in good condition; early, hardy, and prolific.

The species *Triticum sativum* was formerly called *T. vulgare*, and was frequently divided into two classes—the winter, *T. Hibernum*, and the summer, *T. æstivum*. This classification is no longer recognized, as it is now well known that wheat, by being constantly sown in

the spring, quite changes its habits as to time of ripening. The produce of wheat sown in the spring acquires the habit of perfecting its growth quicker than the produce of the same wheat sown in the autumn. Hence the farmer when he sows wheat in spring should be particular to obtain seed the produce of spring grown grain, and not the produce of that sown in the autumn. The same change takes place in all the cereals, and in other crops which we cultivate. The difference also in colour between the red and white varieties is probably due mainly to the nature and character of the soil in which they are grown. Fine white wheats gradually become darker and coarser, and ultimately change their colour altogether when grown continuously on cold, ungenial soils, while the coarser red wheats grown, year after year, on rich, warm soils, in a good climate generally lose their characteristics, become lighter red colour, than yellowish, and finally assume the external appearance of a strong white variety. It has been remarked that the grain in this respect is affected differently to the straw, in changing its colour and character more quickly than that does. Hence we have many varieties of red wheats with white chaff and straw, and varieties of white wheats with red straw—the chaff and straw retaining their colour after the influence of cultivation has affected a change in the grain.

In the foregoing, and all the other varieties of *T. sativum*, the straw is cylindrical in shape, and hollow. In the following species, the *T. turgidum*, and its varieties, the interior of the straw is occupied more or less completely by a pithy substance, which gives it toughness and strength; and the grain or seeds have a less regular and symmetrical shape than those already described.

The varieties of Turgid wheats are generally hardy, vigorous, and very productive, with long tough, coarse straw. Having a low nutritive value, and being unpalatable to cattle, it is unsuitable for fodder; but where straw is in demand for thatching, litter, or similar purposes this description of wheat usually is found to be more remunerative than the finer qualities, especially in cold and heavy soils. The ears are always bearded (awned). In some varieties the awns fall off as the grain approaches maturity, and thus a difference in appearance is given to them. The soils best suited for these wheats are the strongest and richest clays, in which we so often see the ordinary wheats go down towards harvest time—their stout, tough straw being fully capable of standing up against the action of ordinary weather, notwithstanding the size and weight of its ear. They all require to be sown in the autumn, and are always backward at harvest; therefore are more suitable for early than for late districts. The yield is great, averaging probably one-fourth more than that of the ordinary wheats. The grain, how-