

extra spikelet and sometimes even less, but the distance between the spikelets is greatly increased while the kernel is likely to be starchy, hence *environment* vrs. *quality of grain*. Selecting these heads is therefore a useless practice and is always discouraged.

*Physiological Correlations*:—Under this class of correlations belong those variations which occur in the functional organs of the plant. An example of this class is given by certain breeders who have noticed that excessive leaf development is followed by a corresponding reduction in the production of seeds. Potatoes, pease and other crops have also demonstrated that an excessive growth of vine or stalk is usually associated with a decreased yield of tubers or seed as the case may be. East discusses this under the heading of "The interrelation of parts not homologous," or "The compensation in growth of plants." This latter law was propounded almost simultaneously many years ago by G. St. Hilaire and Goethe.

*Coherital Correlations*:—Under this heading are included those characters which seem to be inherited as a single unite character. They are related in such a way that they are "inherited together," although there is little or no evidence to show that this relationship is of any functional importance.

Webber cites an interesting case of coherital correlation which came to his notice in connection with an attempt to cross Black Mexican and Stowell's Evergreen Sweet corn with a view to producing a hybrid having the tenderness and sweetness of the Mexican but with the larger and more suitable ear for canning purposes peculiar to the Stowells. It was also desired to produce a hybrid having the light colored kernel of the Stowells when in the milk stage with a light blue color indicating "something new" when ripe. In the fourth generation an examination was made and careful notes taken on the color of the silks, stamens and glumes of the tassels. In the pure Mexican these parts are light in color while in the Stowells which produces a white kernel, these organs vary from dark reddish-purple to a lighter pink. It will be noted here that, contrary to what would naturally be expected, the black kernel produces light colored reproductive organs while the white kernelled variety bears organs which are dark in color. We often find the same peculiarity in wheat.

An examination of the ears produced in the fourth and fifth generations showed that these related characters still cling together despite the claims of some authorities, notably, Johannsen, that hybridization breaks correlations—Webber found that only in about one case out of 50 or 100 was the correlation broken through hybridization.