

excited the curiosity of the members of a large boarding house in Morgantown, W. Va., it was suggested that a collection be taken among those interested to buy a couple of small alligators and have them cooked, to see if the flesh really was as agreeable as was claimed in the article in question. The writer agreed to buy the animals and prepare the flesh for cooking.

Sufficient funds were collected to buy, of the Arkansas Alligator Farm, two alligators, each about three feet in length. These were killed by cutting the cord at the base of the skull, and the flesh of the entire body was cut into pieces of suitable size for cooking.

The meat was first parboiled (though the necessity for this was doubtful) and was then fried in egg and cracker crumbs, very much after the manner of a breaded veal cutlet.

About thirty people, consisting of both men and women, mostly school teachers, members of the university faculty, and college students, partook of the repast, and all declared the meat to be "delicious."

There was considerable difference of opinion as to what the meat resembled: some thought it tasted like pork; some thought it like fish; one person said it suggested lobster; but all declared it to be most agreeable.

Of course, at the prices charged by supply firms the cost of live alligators would be prohibitive, but in the tropics, where crocodilia are often extremely abundant, the flesh could be had at a very low cost.

The writer has seen alligator hunters, in our Southern states, throw hundreds of pounds of alligator meat to the carrion crows and buzzards, after removing the hides.

Whether the Central and South American crocodiles would be as pleasant for food as the Florida alligator the writer can not say.

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SCIENTIFIC BOOKS

Genetics in Relation to Agriculture. By E. B. BABCOCK and R. E. CLAUSEN. New York, McGraw-Hill Book Co. 1918. Pp. xx + 675, 4 plates.

PROFESSORS BABCOCK and Clausen have given us a valuable new book on the subject of genetics. As the title suggests, the book is intended primarily as a text-book for students of agricultural genetics. It will, however, be of great value also to those whose interest in genetics is not primarily in its agricultural bearings. This is true partly because of the very fact that the authors have brought together a large amount of data from the agricultural publications that is not ordinarily familiar to the geneticist who is working along other lines.

The book is divided into three parts, entitled Fundamentals, Plant Breeding and Animal Breeding. All three contain much material that will be interesting to all students of the subject.

In part 1 the advanced student will find little that is new to him; but he will find a clear and well-written account of the important principles of genetics. The material drawn on for purposes of illustration is well selected, and is up to date—a very important point in a subject developing as rapidly as genetics. In the case of matters still under debate, such as multiple allelomorphism and selection, the authors have presented both sides of the question impartially, and have then weighed the evidence and drawn their own conclusions as to probable correctness. The chromosome hypothesis is adopted, and is used throughout the book in interpreting examples. The work on *Drosophila* is given a prominent place, and the results obtained with that fly bearing on the questions of linkage, crossing over, non-disjunction, mutation, multiple allelomorphs, etc., are carefully and simply presented. The question of pure lines and selection is discussed at some length, and the conclusion is reached that multiple factors offer the most plausible explanation of the phenomena.

The chapters on species hybridization and on the statistical study of variation should both be useful, as they present material that is not adequately discussed in other standard text-books on genetics in English. In the latter chapter the standard deviation and average product-moment are referred to as

absolute values, the coefficients of variability and of correlation as relative values. It seems to the reviewer that the latter, rather than the former, are absolute values; for they are the ones that are independent of the units of measurement used. The point is not one that is likely to cause confusion, as it is at all times clear what the authors mean.

In the chapter on species hybridization the "reaction system" idea is discussed at some length. According to this hypothesis, which has been developed by Goodspeed and Clausen on the basis of their species crosses with tobacco plants, the whole group of genetic materials of a species (the "reaction system" of that species) may behave as a single unit, or nearly so, in influencing dominance and viability in hybrids. The term "reaction system" seems to the reviewer to be rather unfortunate, as it is commonly applied to any system that is undergoing change, organic or otherwise. There can be no question of the very great interest of the facts that have been discovered by Goodspeed and Clausen, but in the opinion of the reviewer more detailed evidence is needed, especially as regards the cytological behavior of the F_1 hybrids, and the genetic behavior of the plants produced by back crossing the F_1 to both parent species, before the conception can be adopted as more than an interesting suggestion.

In parts 2 and 3 a large amount of data bearing on the genetics of domestic animals and plants has been brought together, and has been presented in a thoroughly scientific manner. This makes these sections useful also to the non-agricultural geneticist. To the practical breeder these sections should be invaluable, not alone because of the genetic data they contain, but also because of the discussions of methods of securing and recording information, and of the practical application of genetic knowledge. The chapter on beliefs of practical breeders is especially noteworthy; it gives in concise and convincing form the evidence against telegony, maternal impressions, and similar notions sometimes held by breeders.

The subject of eugenics is treated only very

briefly and incidentally, and even then with a word of warning as to the reliability of the conclusions reached. No attempt is made to take advantage of the great popular interest in eugenics by exaggerating the importance and significance of the results that have been reported.

The authors are to be congratulated on a book that is well printed, well illustrated, well written, and that contains a surprisingly large amount of material that is conveniently arranged and adequately presented.

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SPECIAL ARTICLES

A NEW GRAPHICAL METHOD FOR COMPARING PERFORMANCE WITH PROGRAM OR EXPECTATION

THE graphic method is generally recognized as a most important means to interpret facts to administrative executives as well as to the public. For the sake of simple comparison the well-known bar diagram (besides many other diagrams) is, of course, frequently used, but the latter, especially in the case of a variable delivery or production against time and a fixed quantity (requirements or expected production), loses its value. This characteristic rigidity of the bar diagram permits analysis of only one particular instant of the situation, with no reference to the past or future. For instance, if the total output of flour of a certain milling division starting from January 1, 1918, up to, let us say February 9, 1918, is expected to be 1,314,000 barrels, and up to

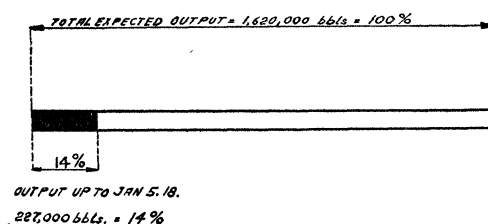


FIG. 1.

January 5, 227,000 barrels of flour have been manufactured, the situation expressed by a bar diagram (Fig. 1), using the expected output as a 100 per cent. basis, would be: