

problem arises: Can we recommend any ration in which imported or other products, cheap in price because they are not now needed by the community, can replace and liberate from the farm home-grown produce that is wanted elsewhere? Time will not allow of a full investigation, and the advice must often be based on foreign work or on past experience elsewhere. Short, rapid trials alone will meet the case. It is not necessary that the whole stock should be liberated; an increased sale of only 10 per cent. from every farm would add very materially to the quantity available for the community.

The replacement, of course, must be done without prejudicing the total food supply; thus we must not advise the production of grain at the expense of milk or of meat; our main concern will be to increase the saleable output.

Another type of product is only temporarily affected. A certain amount of guano which used to go to Belgium is now available. Shoddy or wool waste may be confidently expected in quantity whilst the Yorkshire mills are kept going so busily. There are also considerable amounts of sulphate of ammonia obtainable.

In time of peace cereals are often grown simply on residues of previous crops. Probably in every district the agricultural adviser knows of some manurial scheme that would make use of these products and increase the yield. It cannot be too strongly urged that demonstrations should be put in hand as speedily as possible to show how this can be done. The cost of the manurial scheme should not be too high; these are not times when speculative propositions can be undertaken, but only those that are likely to prove successful. It is certain that the area under wheat has been increased this year; the efforts of the agricultural adviser should be extended now to an increase in the yield per acre. Potash must remain a difficulty until the present search for new supplies is rewarded with success.

A third problem of importance is this:—Are any rearrangements possible whereby products not likely to be in much demand shall cease to be produced? This applies more particularly to horticulturists and market gardeners than to agriculturists. Early cucumbers, for example, have hitherto gone almost entirely to Germany, and this fact was realised in time to prevent growers from trying to raise them. The production of certain fruit and other market garden produce may require similar readjustment.

In conclusion, the time is appropriate to urge on all our farmers the need for reducing all waste to a minimum. The ordinary farm compares badly with modern manufacturing concerns in this respect; considerable amounts of material are left to waste on the plea that it is not worth while doing anything better. It can never be too strongly urged that waste is a sign of bad farming, and the present is a good time for reform.

NEW CANADIAN DINOSAURS.

TWO very remarkable new types of Canadian Cretaceous dinosaurs are described by Mr. Barnum Brown in the first and last of a consecutive series of three papers published in vol. xxxiii., pp. 530-65, of the Bull. Amer. Mus. Nat. Hist. The first of the triad is devoted to Anchiceratops, a member of the horned group (Ceratopsia) from the Edmonton beds of Alberta, characterised by the great size of the knobs bordering the nuchal flange, and the pair of large oval vacuities by which the latter is pierced. Special interest attaches to this type from the fact that it serves to explain the mode of origin of the

ceratopsian flange. In the smaller and less specialised type represented by *Monoclonius* the supra-occipitals form a pair of hook-like opposing processes on the hind border of the upper surface of the skull, leaving a mushroom-shaped interval between them, and a pair of very large vacuities in the skull-roof. In *Anchiceratops* the supra-occipital processes have united in the middle line, where only a remnant of a central fontanelle is left, while the vacuities in the lateral portion of the cranial roof are very much smaller. Finally, in *Triceratops*, which is both the largest and latest member of the whole group, all vacuities have disappeared from the cranial roof and the nuchal flange attains its maximum development.

In the second paper the author describes and illustrates a nearly complete skull of the aforesaid *Monoclonius* from the Belly River beds of Alberta, which exhibits very clearly the features just referred to. But by far the most interesting of all is the skull (associated with the skeleton) of a trachodont dinosaur from the formation last mentioned, remarkable for the elevation of the cranial region into a tall, helmet-like crest, formed by the nasals, prefrontals, and frontals. This unique conformation recalls the skull of the helmeted cassoway—a feature commemorated in the specific portion of the name (*Corythosaurus*



Skull of *Corythosaurus casuarinus*. About one-tenth natural size. *Den*, dentary; *Ex.O.*, exoccipital; *Fr.*, frontal; *Ju.*, jugal; *La.*, lachrymal; *Mx.*, maxilla; *Na.*, nasal; *Pmx.*, premaxilla; *Po.f.*, postfrontal; *Pr.den.*, predentary; *Pr.f.*, prefrontal; *Qu.*, quadrate; *Sq.*, surangular; *Sq.*, squamosal.

casuarinus) proposed for this new type. As minor features of the skull (the figure of which is herewith reproduced on a reduced scale) may be mentioned its relative shortness, the narrow beak, and the small size of the narial aperture.

At the close of this paper Mr. Brown proposes a revised classification of the Trachodontidæ, which he divides into the two families Trachodontinæ and Saurolophinæ, the latter characterised by the presence of a cranial crest which is lacking in the former. The first group is represented by the genera Trachodon, Kritosaurus, Hadrosaurus, and Claosaurus, and the second by Saurolophus, Hypacrosaurus, and *Corythosaurus*. R. L.

GEOLOGY IN AUSTRIA-HUNGARY.

THE widely representative character of the work of the Geologische Reichsanstalt of Vienna is fully maintained in recent issues of the *Jahrbuch*. One of the most notable publications from the point of view of students and teachers of geology is that by O. Ampferer and W. Hammer, entitled "Geologischer