Whatever the actual chemical reactions involved, it can be stated in general terms that the glutathione first combines by means of its —SH group with the substrate, methyl glyoxal, and then, as the enzyme-catalysed reaction develops, enters into some further transformations, again involving its —SH group. This observation seems of interest for the role of sulphydryl compounds in biochemical catalysis generally.

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[1] *Biochem. Z.*, **254**, 332; 1932.
[2] *Biochem. Z.*, **276**, 190; 1935.
[3] *J. biol. Chem.*, **104**, 281; 1934.
[4] *J. Biochem.* (Tokyo), **16**, 317; 1932.

Blood Group Inheritance

WE agree with Prof. Haldane's view[1] that the existence of a fourth allelomorph underlying the inheritance of blood groups (equivalent to the theory proposed by us[2]) cannot be regarded as proved until tested in some such way as he suggests. The published statistics of many investigators, collected by Lattes[3], do not give sufficient information about individual families for the points raised by Prof. Haldane to be dealt with immediately.

Of the alternative theories suggested, mutation is discounted for the reason Prof. Haldane surmised: it would need to occur about ten times as frequently in $AB \times O$ matings as in the other cases where anomalous offspring have been recorded. The hypothesis of trisomy is unsatisfactory in that while it explains the occurrence of AB offspring from $AB \times O$ matings, it fails to account for the O offspring, which according to Lattes[4], Furuhata[5] and Bauer[6] are not less frequent. (Each type comprises about 5 per cent of the total progeny.)

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Oct. 2.

[1] NATURE, **136**, 432, Sept. 14, 1935.
[2] NATURE, **136**, 297, Aug. 24, 1935.
[3] Lattes, "Individuality of the Blood" (Oxford University Press, 1932).
[4] ibid., p. 149.
[5] Furuhata, *Japan Medical World*, **7**, No. 7; 1927.
[6] Bauer, *Klin. Wochenschr.*, **7**, 1588; 1928.

Effect of Vitamin C (Ascorbic Acid) on the Growth of Plants

REFERRING to the letter from Miss Synnöve v. Hausen[1], I gladly acknowledge the priority of her paper, the existence of which was unknown to me when publishing mine on the same subject. Such coincidences are frequent in research work. More important, however, than similar questions of priority is the fact that our experiments have resulted, in a new field of research, in mutual confirmation, although worked out independently and with different methods.

There is yet another point which I wish to stress, and that is: the new proof given of the great utility of the 'correspondence' columns of NATURE in giving early news in the field of research and in bringing together research workers who would not otherwise know of each other's work. This is particularly the case with publications in languages which are read by relatively few people outside the countries in which they are used.

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[1] NATURE, **136**, 516, Sept. 28, 1935.

Zinc and Plant Metabolism

RECENT investigations by Reed and Dufrénoy[1] on the condition known in *Citrus* culture as 'mottle-leaf' are of great interest to the plant physiologist apart from their practical value to the industry. Results obtained from field treatments in conjunction with microchemical examination have suggested that zinc plays an important role in controlling the oxidation-reduction equilibrium of the leaf cells. Application of zinc, either through the soil or in the form of a spray to the foliage, leads to rapid recovery from the 'mottled' condition, associated with profound cytological changes including the production of chlorophyll.

During a visit to California in the early part of this year, I was fortunate in seeing these experiments. The contrast between the yellow-leaved control trees and those that had been sprayed a few months previously with zinc sulphate solution and were now bearing dark green, healthy foliage was truly striking. There can be no question as to the efficacy of the treatment, surprising though it may be that effective amounts of zinc can be absorbed by leaves with a cuticle so thick as that of *Citrus*.

It would be regrettable if these investigations, through their publication in a periodical mainly devoted to agricultural science, should escape the attention they deserve from plant physiologists who may have no direct contacts with applied work.

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Oct. 3.

[1] H. S. Reed and J. Dufrénoy, "The Effects of Zinc and Iron Salts on the Cell Structure of Mottled Orange Leaves", *Hilgardia* (Univ. of Calif., Berkeley, Calif.), **9**, 113–135; 1935.

Prevention of Clogging of Strainers in Rearing Aquatic Organisms

WALTON SMITH has recently[1] described apparatus which overcomes several difficulties in rearing marine larvæ in flowing water, one special point being the waxing of the bolting silk strainers to retard clogging. I encountered the clogging in rearing *Metriocnemus longitarsus*, Goet. (Diptera, Chironomidæ) larvæ in flowing water, the overflow strainer being rapidly stopped up by the algal food and dejecta.

A 500 c.c. distilling flask was provided with a rubber bung through which passed a short 4 mm. bore glass tube as inlet, its inner end closed with a strainer, as these larvæ attempt to leave their vessel. A second piece of tube was bent to an appropriate angle and one limb cut off very short. The short limb was fixed tightly into the inner end of the delivery tube of the flask by a rubber