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Desiccation of Eggs of the Crane Fly (*Tipula oleracea*, L.)

THE ease with which crane fly eggs lose water is of some ecological importance since the eggs are laid near the surface of the soil, among the bases of the grass stems. In this position they are likely to experience fairly wide fluctuations in humidity, at least during drought periods.

The egg is black, measures about 0·8 mm. by 0·3 mm. and has a long, thin filament attached to one end. The incubation period is six days at 21° C. The new-laid egg looks shrunken and wizened. After 5–10 min. it becomes slim and rounded. By the third day it has absorbed water and become considerably bigger.

Using the filament, eggs were suspended in dry air and observed. The first sign of collapse is a slight flattening of one side, closely followed by the appearance of a dimple. The time taken for the dimple to appear was recorded for eggs of different ages. This measurement could be important physiologically since the collapse of the shell might be expected to cause mechanical damage to the embryo.

Eggs up to 15 min. old dimple in 2–4 min. At 15 min. old the dimpling time increases sharply to between 10 and 25 min. It increases steadily thereafter and by the sixth day eggs take 1–1½ hr. to dimple.

Eggs of different ages (5 min., 1 hr., 1 day and 4 days) were then exposed to dry air for about three times the dimpling time at their respective ages. All survived. Another group of eggs, 1 hr. old, were exposed for 100 min. (five times the dimpling time) and only 35 per cent survived. Another experiment showed that eggs more than 1 day old can survive about 1 day at 75 per cent and 2–3 days at 90 per cent relative humidity.

Two interesting points emerge from these preliminary experiments. The egg can survive considerable mechanical deformation. After the first day eggs are able to stand quite severe conditions for at least 24 hr. (and humidities of less than 95 per cent, particularly in the grass mat, are likely to prevail for no longer than the daylight hours).

It seems likely, therefore, that in the field the egg runs little risk of death from desiccation except at the beginning of the embryonic period.

Full details of these and further experiments on the water relations of the crane fly egg will be published elsewhere.

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W. H. Perkin and the Young Chair of Technical Chemistry in the Royal College of Science and Technology, Glasgow

IN evidence on technical education given before the Select Committee on Estimates on June 19, 1953, and published in its twelfth report for the session 1952–53, Dr. (now Sir) D. S. Anderson, director of the Royal Technical College, Glasgow, mentioned that Prof. W. H. Perkin, of dye fame, had been a professor there. Afterwards, in an article on the Royal Technical College, Glasgow, in the *Journal of the Royal Institute of Chemistry* in 1954, Dr. J. A. Cranston, after stating that in 1870 James Young, who was at that time president of Anderson's University, founded the chair of technical chemistry which bears his name, giving 10,000 guineas to endow what was the first chair of applied chemistry in the United Kingdom and further sums of money to provide suitable buildings and fittings, added: "The first 'Young' Professor of Technical Chemistry, 1870–71, was William H. Perkin, discoverer of mauve dye and founder of the coal-tar colour industry".

This is not mentioned in any of the obituary notices of Perkin, and accordingly I made further inquiry of Sir David Anderson when preparing a paper on Perkin and the dyestuffs industry in Britain. In consequence, Sir David and the College librarian made further search into the matter. It appears that although the chair was offered to W. H. Perkin in September 1869, Prof. Penny, the then professor of chemistry, formally protested against the nomination and appointment of an additional professor of chemistry in, or in connexion with, Anderson's University, as adversely affecting his privileges and interests. As a result, Mr. Young withdrew the grant and asked the trustees to allow him to cancel the deed of foundation, and in July 1870 agreed to a modification of the trust deed to secure harmonious working with the existing chair of chemistry. The modified deed and the donation of £10,500 were accepted by the trustees of Anderson's University at a special meeting on July 12, 1870. Perkin's name is not mentioned in connexion with the new negotiations, so either the offer was not renewed or in the meantime he had definitely declined.

For reasons of space, no reference was made to this episode in my article in *Nature* of May 5, 1956, p. 815; but since in his recent history of the chemical industry, Haber (p. 75) writes, "James Young . . . endowed the Young Chair of technical chemistry at Anderson's University, of which he was one of the most distinguished graduates, in 1870. W. H. Perkin was the first professor, from 1870 to 1875, and was succeeded by E. J. Mills", it seems desirable to place the facts on record without further delay.

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