Table 1

	Root elongation (mm.)	S.E.
Natural blanket bog water	51·1	± 7·1
With 1 p.p.m. aluminium added	12·2	± 3·7
Synthetic blanket bog water	48·1	± 7·9
With 1 p.p.m. aluminium added	7·6	± 2·9

Duration of experiment, 42 days

from western Ireland and that of a culture solution made up to resemble this in all major inorganic ions, are given in Table 1.

Aluminium would adversely affect the establishment and growth of the plant due to its inhibition of root growth.

The results of analyses of ombrotrophic bog waters are presented in Table 2.

Table 2. Calcium and Aluminium Concentrations of Several Bog Waters in the British Isles

Bogs with *Schoenus*	Aluminium (p.p.m.)	Calcium (p.p.m.)
Blanket bog drain, Skye	0·31	3·00
Blanket bog, Glenamoy, Co. Mayo	0·03	1·26
Blanket bog, Sheskin Lodge, Co. Mayo	0·51	0·87
Blanket bog, Owennaglogh R., Co. Mayo	0·38	0·50
Bog near Cromaglan Br., Co. Kerry	0·40	0·63
Blanket bog, Owenmore R., Co. Kerry	0·28	0·80
Bogs without *Schoenus*		
Coom Rigg Moss, North Pennines	1·4	0·50
	2·8	0·50
Rusland Moss, Lancs.	1·1	0·80
Blanket bog, near Tongue, Sutherland	1·2	0·73
Woodford raised bog, Co. Galway	1·1	0·78
Raised bog, near Ballinasloe, Co. Roscommon	1·03	1·20

I suggest that *S. nigricans* is excluded from other ombrotrophic bogs in the British Isles by the presence of high concentrations of aluminium ions.

The main source of aluminium in ombrotrophic bogs is probably from atmospheric dust particles. The west coast of Ireland, with its higher humidity and prevailing westerly winds, receives less dust than the rest of the British Isles.

I thank Dr. P. J. Newbould for his help. This work was carried out during the tenure of a Department of Scientific and Industrial Research studentship.

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Isolation of *Microsporum gypseum* from Cow-dung

Microsporum gypseum, known as a soil saprophyte of worldwide occurrence, has recently been traced in the soil in cucumber greenhouses[1,2].

Contrary to the findings reported by Alsop and Prior[1], in my survey of Dutch greenhouses no keratinous fertilizers had been added to the soil[2]. In a search for the origin of this soil infection various soil improvers introduced into the greenhouses were tested mycologically using the hair-bait method. Of all materials examined only 'pot-soil', commonly marketed in Holland as a soil improver for the cultivation of cucumbers, yielded a growth of *M. gypseum*.

According to the firm selling 'pot-soil', this preparation consisted of seven different components, that is, various kinds of peat-moor and peat-bog, dune-sand and cow-dung rich in straw content. All component parts were mycologically tested, but only from one of these, namely, cow-dung, was *M. gypseum* isolated.

This finding, together with the fact that nowhere outside the greenhouse could *M. gypseum* be isolated from the soil, gave me an indication that this fungus might have been introduced from outside into the greenhouse. Gentles[1,3] has also directed the attention to this possibility.

Later on, independently of this finding, *M. gypseum* could be traced to a heap of cow-dung on a farm where the labourer had contracted suppurative ringworm caused by *M. gypseum*. For several months the patient's chief duty had been the carrying and spreading of cow-dung into the fields. The heap of cow-dung from which the isolations were made had been lying outside the cow-shed for about a month. Wheat straw was the only other substance apart from cow-dung, both being directly derived from the housed cattle.

These two different cases in which *M. gypseum* could be traced to cow-dung indicate that *M. gypseum* infection in cucumber greenhouses is likely to be a 'man-made infection', this fungus being introduced into the greenhouse during efforts to improve the soil. Moreover, this finding might provide a clue to the ultimate habitat of *M. gypseum*, which accounts for its patchy global occurrence.

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N(6)-benzyladenine as a Senescence Inhibitor for Selected Horticultural Crops

A study was undertaken on the post-harvest application of N(6)-benzyladenine (manufactured and patented as '*SD* 4901' by the Shell Development Co., Modesto, California) to certain fruits and vegetables in an attempt to delay the onset of senescence. This is a continuation of investigations into the extension of the storage life of fruits, vegetables, and other products with ionizing radiations[1-3], modified atmospheres[4], antibiotics and antifungal chemicals[5-7], and growth regulators[8].

It has been reported[9] that after a crop is harvested, general degradation sets in. This results in the destruction of the soluble ribonucleic acid. Thus, protein synthesis slows down, and the subsequent disintegration into amino-acids provides a medium for the growth of micro-organisms. As the mechanism of protein formation is disturbed, the pigments and other constituents disintegrate and unedible products become evident. The primary step in the degradation of the soluble ribonucleic acid is thought to involve the loss of the end group adenine. A treatment with N(6)-benzyladenine therefore should provide the necessary adenine and restore the soluble ribonucleic acid molecule. Protein synthesis thus would be maintained and the treated produce would stay fresh for a longer time.

Sweet cherries, cauliflower, endive, parsley, snap beans, lettuce (head, leaf, and romaine), radishes with leaves, bunching onions, and cabbage of prime quality were selected for the experiments. Before treatment they were stored at 5 ± 1° C. for a week in an attempt to accelerate enzymatic activity. Such acceleration seemed desirable to convert complex carbohydrates into sugars which would then be available in larger amounts over a longer time for the process of respiration. The produce was then dipped for a minute in 5, 10, and 20 p.p.m. aqueous