

Table 2. RESPONSE OF NINE CLEMATIS SELECTIONS TO THE ROOTING TREATMENTS

Selection No.	Rooting after 36 days			
	Water (per cent)	Indole butyric acid (per cent)	Boron (per cent)	Indole butyric acid + boron (per cent)
181	100	60	80	90
51	60	80	20	90
217	0	50	20	100
169	20	40	40	50
31	80	90	100	90
32	80	90	60	80
94	0	70	0	100
54	40	60	40	70
159	40	80	40	90
Treatment average after 36 days	46.7	68.9	44.4	84.4
Treatment average after 56 days	53.3	74.4	53.3	85.6

In the second study 30 two-node cuttings were taken on July 24, 1958, from each of 9 numbered clematis selections of diverse parentage and were given the four treatments described in the first study. Cuttings were divided into lots of unequal size so that 10 cuttings of each selection received the indole butyric acid and indole butyric acid plus boron treatments while 5 cuttings of each selection received the boron and the water treatments. The rooting conditions on the cutting bench were the same as those described in the first study. Table 2 shows the treatment averages after 36 days and 56 days and the percentage rooting of each selection after 36 days.

Selections varied considerably in response to the treatments, but the treatment averages in general substantiated the results obtained in the first study. In particular, the high rooting percentage of the indole butyric acid plus boron treatment and the acceleration of the rooting process by the boron in that treatment agreed with the results of the former study. A notable exception is the lack of increased rooting in the boron treatment as compared with the water check. This lack of increased rooting seems to support the views of Rehm<sup>3</sup> and Hemberg<sup>1</sup> that boron promotes root growth and not root initiation. If applied to the indole butyric acid and indole butyric acid plus boron treatments, this concept implies that cuttings in both treatments may have formed the same number of root initials as a result of the initiation stimulus of indole butyric acid, but that more roots grew in the treatment with indole butyric acid plus boron due to the growth stimulus of boron. Nevertheless, other possible explanations of this boron stimulation, such as a boron enhancement of the effectiveness of indole butyric acid in stimulating root initiation, seem equally plausible in these studies. Further investigation is necessary to elucidate the role or roles of boron in rooting cuttings.

Results of studies which indicate that boron also enhances the rooting of cuttings of certain varieties of rhododendrons and English holly (*Ilex aquifolium* L.) will be published elsewhere.

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<sup>1</sup> Hemberg, T., *Physiol. Plant.*, **4**, 358 (1951).

<sup>2</sup> Gorter, C., *Physiol. Plant.*, **11**, 1 (1958).

<sup>3</sup> Rehm, S., *Jahrb. Wiss. Bot.*, **85**, 788 (1937).

### Crowned Cranes in Cambridgeshire

FOUR crowned cranes (*Balearica pavonina*) recently appeared in an area of arable and marshy country in Cambridgeshire. This species, so far as we know, has not previously been described as occurring at large in Britain, although one specimen was shot in Ayrshire in 1871, and had "doubtless escaped from captivity"<sup>1</sup>.

The birds appeared in their present haunts in August 1958, or possibly earlier. They were last seen on January 24. Two were adult; the other two, from their more buff-coloured plumage, appeared to be immature.

All exhibited the straw-coloured crown characteristic of the species and the elongated secondaries typical of cranes. The white facial patch behind the eye was very conspicuous; the red area behind it was clearly seen but more difficult to define. The neck appeared dark grey or black according to the lighting.

In flight the neck and legs were extended, and with the back, formed a dorsal convex curve. The crown was laid close to the neck. The large white wing was edged at the tip and along its hind margin with black primaries and secondaries. It presented a digitated appearance at its extremity. A gap in the secondaries could be seen when the wing was viewed from below. The birds' flight was powerful and at times swift, direct and purposeful when compared with that of the heron. Landing was preceded by a glide, and lowering the legs produced a braking effect by opposing the under surface of the wings to the direction of flight. The birds were usually seen flying in line ahead, and any tendency for the group to become split up was checked by a repeated honking call from the leader.

Owing to the wet summer in 1958, several fields of barley in the locality now frequented by these cranes were left unharvested. They have been commonly observed feeding on the uncut barley and gleanings among the stubble.

They were alert and very shy, and careful stalking has been required to approach within fifty yards. On taking wing they travelled 400-1,000 yards and then once more alighted to continue feeding. Once the larger of the two adults was seen to perch on a tree, where it acted as sentinel. The remaining three partially concealed behind a broken hedge could be seen with necks craned in a characteristic posture.

From their extreme wariness we do not believe that these birds have escaped from captivity; but this cannot be ruled out without a complete record of recent escapes of this species. We have now had them under observation for more than two months and attempts to photograph them, with or without 'hides', have met with little success. We should add that since January 10 only three cranes have been seen; the fate of the fourth, an immature bird, is unknown.

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<sup>1</sup> Witherby, H. F., et al., "The Handbook of British Birds", **4**, 455 (London, 1940).