GROWING NEW ZEALAND PLANTS FROM SEED AT WHALTON NORTHUMBERLAND ENGLAND

by J. Cartman Senior

I first became interested in growing New Zealand plants after my son emigrated to New Zealand and started to send a few seeds early in 1976. I had no idea of the sowing medium nor the climatic conditions required but after consulting SANDERS ENCYCLOPEDIA I realised that most would be difficult. Having been assured that nearly all the seeds came from the mountains and would be hardy, I decided that all would be kept on a shelf on the outside north facing side of my greenhouse. I also realised that the seeds would be freshly picked at the end of their season in New Zealand and that I would be attempting to germinate them before they had a period of rest and dormancy. However, nothing ventured, nothing gained.

I mixed a compost of equal parts by bulk as follows :-

1 part	well rotted compost
1 part	peat
1 part	coarse sand

I used 3" plastic pots throughout; they were "crocked" about 1" deep, filled to ¾" from the top, seed was then sown and thinly covered by coarse sand, then covered thinly by ⅛" gravel. The idea was to conserve moisture as we were moving from spring to drier weather. The pots were then plunged into rain water to the level of the compost and allowed to thoroughly soak through (½ hour). Then they were placed on the outside shelf to drain and take their chance. They were kept moist at all times by rain water or watering can with a fine rose. The ⅛" gravel was sufficient to keep the often tiny seeds from being disturbed.

Cotula atrata were the first seeds to show, followed by Hebe raoulii var maccaskillii, then Cotula coronopifolia. The Cotula coronopifolia were the first seedlings large enough to be pricked out and I filled a 9" x 6" seed tray. Within a month I had a mass of "yellow buttons". Meanwhile, I tried to prick out the Hebe raoullii but there I came unstuck. All the transplanted seedlings died off. I decided to leave the four or five left in the 3" pot severely alone and they prospered. I tried to transplant the Cotula atrata and again they died off quickly. I then decided to pot up the whole pot full of seedlings into 5" pots without disturbing the seedlings. This gave much better results and from then on I decided to pot up into 5" pots as soon as they looked big enough to require a move. Again I used the same compost. Meanwhile I prepared a frame for my ever increasing collection. I covered the floor of the frame with old roofing slates. I didn't want the roots growing through to the soil and whenever I potted up, the 5" pots went immediately into the frame. The frame was facing south and in full light. With the onset of winter I decided to cover the frame with a "light" but I kept the glass on blocks 4" high to allow plenty of air circulation. The 3" pots, which had not germinated, were left on the shelf open to all that a severe English winter could offer. Quite a lot survived as can be seen from the enclosed list. After the first heavy fall of snow and some bitter frosts - 10°c - 15°c of frost, I noticed that the Myosotidium hortensia

and the Cotula atrata were looking very sick so I put them into the cold greenhouse, but to no avail. They just shrivelled up and died. Meanwhile, all during autumn the Cotula coronopifolia had been flowering and seeding and every pot and all the ground below my shelf were covered in seedlings. I am still pulling out seedlings which had probably been blown all over the place. Another lesson I had to learn the hard way!

We had a severe winter 1976-77 and once the frame was covered deep in snow for 3 weeks but I didn't disturb anything. When the worst of the weather was over I removed the frame light and inspected the plants, they had survived and were indeed growing on very slowly. I sprayed once, on a fine day in March 1977 with a Thiram box fungicide. There was no evidence of botrytis but they were sprayed purely as a precaution.

I never had any occasion to spray against aphids, they did not seem to go for any of the New Zealand seedlings or plants but this season there has been quite a lot of "cuckoo spit". I have been able to keep all the plants clean by removing the pests with a knife blade so I still don't know what effect, if any, a general insecticide will have.

Only two plants have so far required to be potted up to 8" pots, Phormium tenax and Craspedia incana.

P. tenax is growing better in the 9" pot than 2 others in the open rockery. I suspect the gritty well drained soil of the rockery does not suit. On the other hand, Craspedia incarna has done well on the rockery and one plant has six "woolly heads". The only other plant growing "outside" is a dwarf Aciphylla. Having read a little about the "fierce spaniard" I decided to put it in a shady, little used part of the garden. It has grown well and is about 5" tall with very tough three pronged leaves, and they have needle sharp points. The drab olive green leaves with a faint yellow stripe along the edges, contrasts well with its nearest neighbour, some native primules. (P. veris and P. elatior).

I have a particular regard for Craspedia incana, the large grey leaves covered with silky hair appeals to me greatly, perhaps that is because I like dwarf conifers and they don't have exotic blooms either! Scleranthus uniflorus is another favourite of mine. It is a golden yellow colour, firm to the touch and fills the 5" pot like a dome. Luzula pumila appears to have a strange habit of growth to me. The seed heads formed in May 1977 deep down among the spiny grass. They seemed to be flecked with silver and they grew rapidly to about 3" long. Then last month another crop of seed heads showed and they are now about 1½" long and today I noticed a further batch of seed heads deep down in the plant. Most unusual!

In concluding, I must say I'm looking forward to seeing many more unusual plants and their flowers.

SPECIES	DATE SOWN	GERMINATION	FLOWER	GENERAL REMARKS
Acaena spp. (Bronze leaved)	15.6.76	Aug '76	-	Strong. 6" pot full.(Slow to flower in bud).
Myosotis eximea	15.6.76	Aug-Sept '76	May'77	5-6 weeks. (Still in flower).
Luzula pumila	19.6.76	Aug'76	Seeds May'77	2nd crop seed heads June'77.
Sophora prostrata	21.4.76	June'76	-	6" high.
Myosotis traversii var cantabrica	24.3.76	June'76	May'77	Flower period short. 7-10 days.
Celmisia lanceolata	14.3.76	Aug'76	-	Strong plants. Slow growing.
C. coriacea	15.6.76	Aug'76	-	Very strong. Slow.
Senecio saxifragoides	30.6.76	Aug'76	-	Slow.
Nothofagus solandri	16.4.76	Sept'76	-	Slow 4" high.
Ranunculus insignis	8.6.76	Oct '76	-	Very strong.
Wahlenbergia albomarginata	30.6.76	Mar '77	June'77	
Cotula pyrethrefolia	3.7.76	Sept'76	-	Strong.
Celmisia maybe armstrongii (Long leaved)	3.3.76	July'76	-	Very slow.
Scleranthus uniflorus	3.7.76	Sept'76	-	Strong. 6" pot full.
Cordyline pumilio	30.6.76	Aug'76	-	Slow
Cotula atrata	20.2.76	Apr-May '76	-	All plants died during winter. Strong growth.
Clematis afoliata	1.5.76	Aug'76	-	Strong.
Gaultheria depressa	24.3.76	Sept'76	-	Slow. Strong.
Carmichaelia astonii	4.3.77	Mar 10th '77	-	Fast 4" high.
Carex secta	15.6.76	Aug'76	-	12" - 15" high.
Ranunculus lyallii	1.5.76	May'77	-	No sign of germ during '76. Slow.

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SPECIES	DATE SOWN	GERMINATION	FLOWER	GENERAL REMARKS
Phormiun tenax	4.4.76	June'76	-	12" - 15" high.
Wahlenbergia albomarginata	4.3.77	May'77	1st July '77	
Hebe raoulii var. maccaskillii	21.4.76	Aug'76	-	Very slow.
Parsonsia capsularis	9.8.76	June'77	-	Very slow.
Myosotis arnoldii	4.3.77	Apr'77	-	Strong.
Myosotis colensoi	4.3.77	Apr'77	-	Strong.
Craspedia incana	24.3.76	Aug'76	Apr'77	Strong.
Aciphylla Spear Grass	20.2.76	June'76	-	Slow. Strong 5" high.
Aciphylla Slender leaf	8.6.76	May'77	-	Very slow.
Hymenanthera alpina ?	4.4.76	May'77	-	Very slow.
Coprosma petriei	4.4.76	Apr'77	-	Very slow.
Clematis petriei	4.4.76	Apr'77	-	Very slow.
Clematis australis	30.6.76	June'77	-	Very slow.
Clematis quadribracteolata	19.6.76	June'77	-	Very slow.
Carmichelia spp.	21.4.76	June'77	-	Very slow.
Carmichelia monroi	8.4.77	Apr'77	-	Germinated in 10 days.
Pachystegia insignis	21.5.77	June'77	-	Slow growth.
Myosotidium hortensia	19.6.76	Sept'76	-	Rapid lush growth. Died during winter '76-77.
Cotula coronopifolia	1.5.76	June'76	July'76	Flowered and seeded Aug'76.

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Notes supplied by J. Cartman Jnr.

1. The area around WHALTON is quite a bit colder than Christchurch and has snow every winter, sometimes several feet. It has regular heavy frosts of up to 15°c - 18°c and had very severe frosts - 29°c at least twice in early 1977. The area is far enough inland to escape the warming effect of the sea; the altitude is 650 feet (200m) approximately. Winter lasts about six months.

2. "Cuckoo Spit" is a local (Northumbrian) name for an insect called a Frog Hopper. The insect is green, about 4mm long and it exudes a frothy mass to presumably hide it from dehydration. The insect sucks the sap from the plant. The name "cuckoo spit" comes from the fact that the insect appears in Spring at the same time as the migratory European cuckoo arrives from Africa. I think the insect has been introduced into New Zealand in recent years.

STEMONITIS FUSCA A MYXOMYCETE

By Tessa David

An intriguing specimen found on the cut surface of Radiata Pine. The base appeared as a spillage (not unlike blackcurrant jelly) from this a very fine, shiny black hairlike growth, 5mm in length then spore cases, mat black 6-7mm in length and much thicker. A specimen was sent off to Dr. Greta Cone at Victoria University, and my thanks to her for the naming and information received. "An organism halfway between animals and plants, the first stage an Amoeba which spills out on the surface of wood or bark, and crawls or flows about, then it drys and produces the sporangia".

It is of world wide distribution and Dr. Cone has seen it in Native bush areas. This specimen was collected early May, at Peel Forest and although it is not rare, it is seldom noticed.
