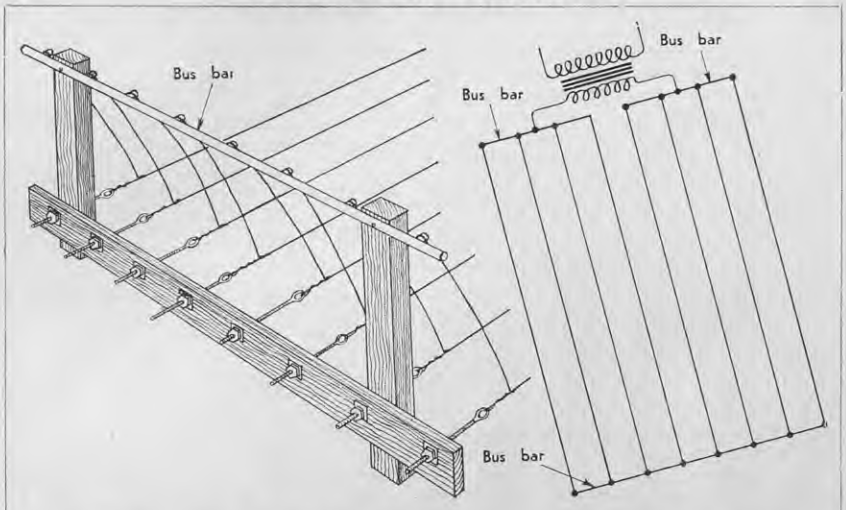

Fig. 3—The grid system of placing warming wires. Left—The method of tensioning. Right—Plan of the system.

Fig. 2 shows the single wire method for placing warming wires with a diagram of some of the equipment.

Fig. 3 shows the grid method for placing warming wires and the tensioning system.

Without the cost of erecting the frame, the approximate cost of the equipment shown in Fig. 2 would be as follows:—

	£	s.	d.
2 to 3 cub. yds. of sand	2	10	0
300 watt. transformer ..	16	0	0
Intermittent switch ..	1	10	0
Wires, battens, staples, etc.	1	10	0
	£21	10	0

The electrician's charges may vary considerably. If power has been already installed in the glasshouse for other purposes, the electrician's charge should approximate £5. If, however, a new circuit has to be run, the cost would have to be estimated for the individual jobs.

The propagating bed shown in Fig. 2 would consume about 2.5 units a day.

References

"Simplified Electrically Heated Hotbeds", British Electrical and Allied Industries Research Association's Technical Report W/T7, by C. A. Cameron-Brown and E. W. Golding.

"Electrical Pre-warming of Tomato House Soil", British Electrical and Allied Industries Research Association's Technical Report W/T15, by C. A. Cameron-Brown and E. W. Golding.

"Journal of the Institution of Electrical Engineers", Vol. 95, Part II, No. 46, August 1948, page 423, "The Application of Electricity to Horticulture", by C. A. Cameron-Brown and E. W. Golding.

Meteorological Records for June

Station	Height of station above M.S.L. (ft.)	Air temperatures in degrees (Fahrenheit)				Rainfall in inches					Bright sunshine hours
		Approx. mean	Difference from normal	Absolute maximum and minimum		Total fall	No. of days of rain	Difference from normal	Maximum fall		
				Maximum	Minimum				Amount	Date	
Kerikeri	201	54.0	+ 1.9	69.2	34.7	5.73	25	— 1.35	2.08	8	127.8
Auckland	160	55.2	+ 2.2	67.3	42.7	7.11	20	+ 1.72	1.42	8	94.9
Tauranga	10	51.0	+ 1.1	64.4	31.2	5.30	15	— 0.25	1.10	6, 9	133.0
Ruakura	131	49.2	+ 1.7	63.0	24.8	8.37	22	+ 3.59	1.57	6	84.6
Rotorua	969	48.5	+ 2.1	62.3	28.8	8.52	18	+ 3.20	2.88	9	87.7
Gisborne	12	51.0	+ 1.7	68.2	30.2	8.31	16	+ 4.10	3.17	9	108.2
New Plymouth ..	160	51.3	+ 1.2	61.5	32.5	7.22	21	+ 1.04	2.91	16	77.5
Napier	5	50.1	+ 1.4	66.9	30.4	6.88	12	+ 3.82	2.63	9	104.2
Karioi	2125	43.5	+ 2.0	57.0	25.0	3.45	23	— 1.65	0.56	23	
Wanganui	72	50.4	+ 1.6	63.2	34.7	3.25	21	— 0.14	0.43	23	67.7
Palmerston North .	110	48.4	+ 1.4	63.0	29.8	2.58	20	— 1.77	0.41	13	61.4
Waingawa	350	46.3	+ 0.9	63.8	26.0	10.91	23	+ 6.82	4.79	10	74.5
Wellington	415	47.9	+ 0.2	58.6	35.1	9.90	18	+ 5.25	1.62	24	65.9
Nelson airfield ..	5	45.6	+ 1.5	61.1	27.8	5.22	14	+ 1.93	1.21	23	118.3
Blenheim	12	46.0	+ 0.6	63.5	29.0	4.34	15	+ 1.86	0.97	20	128.0
Hokitika	12	45.2	+ 0.9	64.7	29.2	6.39	13	— 2.44	1.29	3	133.6
Hanmer	1225	39.0	— 0.7	64.0	20.0	5.86	19	+ 2.37	1.31	10	84.4
Christchurch ..	22	43.8	+ 0.6	63.3	27.4	1.38	11	— 1.21	0.47	20	94.8
Ashburton	323	41.6	— 0.2	62.4	24.2	1.31	12	— 1.29	0.41	17	87.9
Timaru	56	42.0	— 0.4	55.2	26.2	0.39	8	— 1.48	0.16	17	113.1
Alexandra	520	35.8	— 1.9	54.9	19.0	0.67	11	— 0.12	0.38	26	84.5
Taieri	80	39.2	— 2.6	59.6	20.1	1.47	12	— 0.85	0.50	26	104.1
Invercargill airfield	0	39.0	— 2.6	55.6	21.0	1.84	14	— 1.81	0.50	28	81.2

Co-operative Hybrid Maize Tests

THE value of hybrid types of maize in Europe and the Mediterranean area has been demonstrated since the war. A recent report* published by the Food and Agriculture Organization of the United Nations summarises the results of trials carried out in 21 countries during 1950.

Practically all the hybrids tested that year were of American origin, and most gave yields higher than those of the best local open-pollinated varieties. The trials have shown the importance in many countries of such factors as maturity, resistance to cold, drought, wind, diseases, and insect pests, as well as yielding ability.

Several of the hybrids under trial have also been tested in New Zealand with similar results in regard to relative maturities and relative yields.

The later maturing hybrids, such as US 13, do not regularly develop to full maturity under the climatic conditions of the recognised maize growing districts of New Zealand. The earlier-maturing varieties such as W. 240, W. 255, and W. 275 are unable to take full advantage of the growing period in these districts, and yield poorly in comparison. Whether these earlier-maturing types have any place in districts more southern than Poverty Bay and northern Hawkes Bay will depend chiefly on two factors—the risk of unseasonable frosts, and the economic relationship between maize and other grain crops. Some pilot plots were sown in Marlborough last season and will be repeated next season to gain information on these points.

—J. H. CLARIDGE

* **Co-operative Hybrid Maize Tests in European and Mediterranean Countries—1950. FAO, Rome. 2s. 6d.**

Radio Broadcasts to Farmers

RADIO broadcasts to farmers will be given as follows during September:—

1YA Auckland, 7 p.m.

2 September—"Discussion on Bloat Prevention", by I. G. Watt, Livestock Superintendent, and E. H. Arnold, Assistant Fields Superintendent, Department of Agriculture, Auckland.

9 September—"Rush Control", by A. V. Allo, Instructor in Agriculture, Department of Agriculture, Tauranga.

16 September—"Care of Sheep Skins", by D. G. Austin, Sheep and Wool Instructor, Department of Agriculture, Auckland.

23 September—"Problems in the Home Orchard", by L. R. Renouf, Horticultural Instructor, Department of Agriculture, Auckland.

2XP New Plymouth, 8 p.m.

10 September—"Is Lime Necessary for Taranaki Soil?" A farmer discusses this point with A. C. Burgess, Instructor in Agriculture, Department of Agriculture, New Plymouth.

24 September—"What is Done to Assist Pig Producers", by C. M. Bailey, Supervisor, Taranaki District Pig Council.

2ZA Palmerston North, 12.30 p.m.

7 September—"Pigs, Seasonal Stock Notes", by D. R. Thomson, Livestock Instructor, Department of Agriculture, Palmerston North.

14 September—"Dairy Farm Pasture Management with the Electric Fence", by W. B. H. Smith, Fields Instructor, Department of Agriculture, Masterton.

21 September—"Vegetable Varieties for Manawatu Home Gardens", by B. P. Coleman, Horticultural Instructor, Department of Agriculture, Palmerston North.