

that we used to read about in the text-books doesn't obtain in dry lands. Moisture goes down all right, but it doesn't come up. Wheat roots will go down six feet where there's good subsoil, but if the moisture is not there the crop will fail. If there is no reserve moisture in the subsoil it will take half an inch of rain per day for 10 days to mature a 25-bushel crop.

"Are your problems the same as those of Kansas and Oklahoma?"

"Yes, but theirs are more intense. I saw one farm there where the soil had drifted 20 feet high against the farm buildings. But they're handling it successfully now. Adversity has its good effects, and to-day the results of research get a better reception than ever before."

"The farmer welcomes the scientist?"

"Yes, there is no one to-day readier to apply his findings."

"Do you work in with the Americans in soil-conservation?"

"Yes, they're great co-operators. They have more money than we have, but we have been able to help them. Their biggest problem, though, is water erosion in Colorado, Nebraska, and thereabouts. The silting of the main rivers in the U.S. has been tremendous. I saw four inches of rain fall in 20 minutes in Colorado and you wouldn't believe the erosion it caused unless you saw it. They've taken to contour farming, etc., there, and to look at the hills you'd think a beauty specialist had gone over them and marcel-waved them."

Exports and Fertility

"How long do you think a wheat exporting country can go on exporting—how long can it go on feeding a population which may be four, or fourteen, thousand miles from where the food is grown?"

"This question of fertility is one we've been investigating for a long time—we've carried out fertilising experiments for 37 years now without getting any material change in the yield. Moisture is the answer. Wheat lands which have been cropped for 60 years are as high to-day in such elements as potash, calcium, and phosphorus as they were in their original state, and we estimate that in the dry lands there is enough fertility to stand hundreds of years of cropping yet. We don't advocate fertilisers. There is no lack of the elements I've mentioned, and putting straw back into the land is building up its nitrogenous content. If we were ever to need fertiliser we have unlimited amounts—we export tremendous quantities of superphosphate now. Of course, I have been speaking of the dry-land areas. In the humid-land country—in Eastern Canada—we follow the same practice as you do in New Zealand and use fertiliser. But we do have some trace-element deficiencies in all our lands—we get goitred calves and lambs in our humid areas, for example. But in the dry lands the water has 40 times the iodine-content necessary for human health."

Help from Christchurch

"Insect problems are one of our main worries in the dry lands, and the principal pests are grasshoppers, wire-worms, cut-worms, saw-flies, and so on. Saw-flies, which lay their eggs below the wheat head, used to destroy thousands of acres, but now we've got a new strain which resists them. One of its parent strains was a hybrid developed by your Dr. Frankel in Christchurch, and we crossed it with several of our own to get resistance to rust and improved baking quality. Don't think we haven't got our problems in the wheatlands—but fertility is not one of them."

NEWS ON SHORTWAVE

THE following is a list of News Bulletins in English at present being heard on the shortwave band. Reception at present is best at night.

Time	Place	Freq. Mc/s.	W/L Metres
a.m.			
5.45	Turkey	9.465	31.70
5.45	Indonesia	11.00	27.27
6.00	London	11.82	25.38
6.15	Vatican	9.67	31.02
6.45	Brazzaville	11.97	25.45
8.00	London	18.025	16.64
8.00	Australia	9.66	31.06
8.30	Australia	9.615	31.21
10.45	Australia	17.80	16.85
11.00	New York	17.78	19.87
p.m.			
1.00	London	11.75	25.53
1.40	Switzerland	11.865	25.28
3.00	London	11.75	25.53
5.00	San Francisco	11.81	25.40
5.15	Australia	15.32	19.59
6.00	London	9.64	31.12
7.00	San Francisco	11.90	25.26
7.30	Australia	17.84	16.8
7.50	Lake Success (except Monday)	9.65	31.09
8.00	London	17.715	16.93
8.00	New Delhi	17.76	16.89
8.00	San Francisco	15.19	19.75
9.00	Australia	11.74	25.55
9.00	Canada (Sunday only)	11.72	25.60
9.30	New York	9.65	31.09
10.00	Saigon	11.79	25.44
10.00	San Francisco	9.70	30.92
10.00	New Delhi	15.16	19.79
10.30	Holland	17.77	16.88
10.30	Batavia	15.145	19.81
11.00	London	17.81	16.84
11.00	San Francisco	11.90	25.21
11.00	Australia	11.74	25.55
11.30	New Delhi	17.83	16.83
11.30	Indonesia	11.00	27.27
12.00	San Francisco	9.70	30.92
12.00	Moscow	15.33	19.57
a.m.			
12.30	New Delhi	15.13	19.83
12.30	Ceylon	17.77	16.88
12.45	London	11.93	25.15
1.00	London	17.81	16.84
1.00	Australia	15.20	19.72
1.00	San Francisco	6.06	49.40

"Radio Playground" at 1ZB

AUCKLAND children are being well catered for during the present restrictions imposed on their holiday activities by the Health Department. The latest contribution to the "Entertain the Children" campaign which has been started by various organisations in Auckland comes from 1ZB, which has replaced its Happiness Club sessions on Mondays, Wednesdays and Thursdays with a special children's programme called *Radio Playground*. Apart from making sure that the programmes chosen will be attractive to child audiences, no hard and fast rules have been laid down for *Radio Playground* sessions, but all sections of 1ZB's staff—announcers, accounts staff, copywriters, and technicians—have been called upon to give their assistance. The result of these combined efforts, together with the work of the compères, Gil Cooke, Phil Shone, and Thea Ryan, has been a session of consistently high quality. *Radio Playground* is broadcast from 1ZB at 1.45 p.m. every Monday, Wednesday, and Thursday.

WORTHWHILE READING

THUNDER OUT OF CHINA, T. H. White and Annalee Jacoby, 24/6 posted. An intimate and informed portrait of Chinese life and affairs, far outside the ordinary confines of Far Eastern reporting, by two "Time" correspondents.

REPORT ON EXPERIENCE, John Mulgan, 11/9 posted. The record of a sensitive New Zealander's comments on society between wars and his observations on wartime experiences in Greece.

ONE FAIR DAUGHTER, Bruno Frank, 7/6 posted. A novel that seems bigger than life, covering the events of two generations in Poland from 1914 to 1939 in terms of human experience.

PORTRAIT OF A MARRIAGE, 9/- posted. An absorbing story of a marriage between two people so unlike that it couldn't be successful—but was profoundly so.

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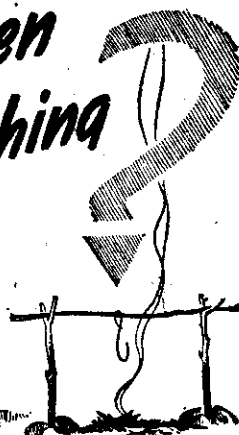
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