NOTES ON FIELD TRIPS: THE INSTITUTE MEETING AT MASTERTON, 1963

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Field trips at the meeting illustrated the theme of extension forestry by local bodies, farm foresters, and small companies. On Sunday, April 28, three busloads and a cavalcade of private vehicles proceeded to the Masterton County plantations 9 miles along the Woodville Highway from Masterton. These plantations were established as a result of a bequest by Dr M. Trimble, the income from which was to be used for public afforestation in the County. The stands are all of radiata pine, growing on a shingle terrace exposed to the prevailing NW. winds. A total of 214 acres were established, mainly between 1944 and 1950. Spacing has varied from 8 ft × 9 ft to 9 ft × 9 ft and wider. Approximately 175 acres have been pruned to varying heights, the average being close to 14 ft, and the same acreage has been thinned between 1959 and 1961. The thinning yield amounted to £6,418 from posts and stays plus a few sawlogs.

In the stand visited most comment centred on the delayed pruning to 14 ft and the amount of large material left to rot after post thinnings. Most members considered that high pruning should have been done earlier, since the probable knotty core achieved in the stand would be 10 in. to 12 in. diameter, and should have been carried to 18 ft.

With Masterton only 9 miles away, it was also difficult to understand the lack of a market for thinned buttlogs that were too large for posts or strainers.

From trees to birds—at Mt. Bruce a native bird reserve is being developed by the Department of Internal Affairs. Enclosures have been erected to house kiwis, kingfishers, wekas, pigeons and the star attraction—two takahe. The reserve will eventually be opened to the public when fully developed some time during 1964.

Kiriwhakapapa block in Tararua Forest Park was the venue for a picnic lunch. This allowed members a preview of a possible future meeting on forest recreation as it is intended to develop this area for recreational use. The block was logged between 1928 and 1934, yielding 4,000 to 5,000 bd. ft per acre from scattered rimu and miro.

Interplanting was undertaken over 154 acres between 1932 and 1935, mainly along tracks and old tramway routes. Although competing with dense beech regeneration from the 1936 seed year, western red cedar, Lawson cypress, redwood, Douglas fir, Sitka spruce, Eucalyptus regnans and E. gigantea were successfully established. The planted species all exhibited the shortcomings of similar attempts at enrichment made elsewhere during the 'thirties: low stocking, inadequate tending, multiplicity of species, and animal damage.

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Leaving the "hallowed" ground (apologies to Bill Jolliffe), the next visit was to Russell W. Smith's "Te Hau" property in the Tararua foothills six miles west of Masterton. The property is at 600 to 1,000 ft in a 50 in. rainfall and subject to heavy winds, as its name suggests.

Before visiting woodlots the promise of a rich reward (?) for successful identification of five unknown timber samples galvanized certain members into astonishing alertness and some fairly intensive lobbying! The results of this test caused general surprise, particularly the "eucalypt?" disguised as a softwood.

The first plantation visited was an experimental block of two acres planted in 1952 on an easterly sidling. The main species were Douglas fir, redwood, Wellingtonia and *Thuja plicata*—partly in pure stands and partly in mixture with European larch. All species had been low pruned and discussion devolved on further tending, the stage at which the larch nurse should be removed, and the utilization of thinnings of these species.

The second plantation was three acres of radiata pine planted 9 ft × 9 ft in 1946 and low pruned in 1952. Thinning for posts and battens was still proceeding, leaving a residual stocking of about 175 trees per acre; 800 battens per man-day were being sawn with a portable plant adjacent to the plantation. With a mean top height of about 80 ft and diameters of 12 to 16 in. for the residual trees, high pruning had been discontinued. Some windthrow on the moister ground had followed this rather late initial thinning.

A ten-acre stand of radiata pine, planted at 6 ft × 6 ft in 1949 with wildings from the Taupo fires of 1946, had been low pruned before age 10 and progressively thinned for posts during the past four or five years, reducing the stocking to about 200 stems per acre. Mean top height was about 60 ft and diameters of the residual trees 8 to 10 in. The green level was near 18 ft, to which height 150 of the residual trees were being pruned.

In addition to providing the needs of his 935 acre property, Mr Smith had a ready outside market for posts, battens and small sawlogs. He finds it preferable to employ casual labour, usually on a contract basis, rather than to increase his regular farming labour complement to cope with the forestry work. On a part of the farm not visited Mr Smith has one of the six experimental fences established by the N.Z. Farm Forestry Association to test the durability of posts and battens of a wide variety of species and treatments, on a range of soil and climatic conditions in the southern part of North Island.

On the Monday our first visit was to the Te Wharau Forest Co. Ltd. property, situated 25 miles south-east of Masterton on the Gladstone East Coast Road. Four enthusiasts subscribed capital to form this company in 1949 and purchased 700 acres that year. The object of the company was simple—"to grow as many pine trees as could possibly be planted by four shareholders during the weekends!"

So far, 400 acres have been established, mainly at 10 ft spacing. Unfortunately access was impossible by bus, so most members had to be content with a distant view.
The main impression created was a feeling of admiration for the tenacity and sustained effort of the four shareholders. They had made mistakes but they had profited from them. They now have no illusions about the hard work involved and careful planning required for woodlot establishment on a “do-it-yourself” basis. Nor have they delusions of grandeur about the probable financial returns. The first log sale had just been arranged — 12-year-old thinnings from a 10 ft × 10 ft stand; logs averaging 15 in. diameter at butt end and 25 to 30 ft long. The yield per acre in volume or money was not yet known.

This visit would best be summed up in their own words: “We've planted pine trees in the Te Wharau district which will, we think, at least promise a return from land which has, for the better part of a hundred years, been unproductive and regarded as useless by most everyone but the Government Valuation Department, who have this year increased the unimproved value of the property by some 700%. . . .”

The next stop was a few miles further along at the 435 acre “Sea View” property of C. E. Daniell Ltd. Covered with scrub and an erratic stocking of uneven-aged advance growth of radiata pine, the aims of the company to plant up the open country and tend the advance growth were discussed and criticized. So far 26 acres have been planted by Lowther machine with radiata pine.

Main interest centred on the treatment of the existing advance growth. Some productive thinning for posts and poles, as well as poisoning of large malformed stems, had been attempted in order to leave a uniform stand of pruned stems.

A reference to difficulties the company had experienced in acquiring land for afforestation sparked off some animated discussion on land use and acquisition.

One of the highlights of the meeting was the buffet luncheon provided at Ngaumu forest. This really was a splendid effort by the local staff and was very much appreciated. Included in the itinerary at Ngaumu was a game of hide and seek for “Lou”, followed by a demonstration of the Morris high-pruning ladder and platform.

The next stop compared different thinning regimes in 8 ft × 6 ft radiata pine, planted 1947, Site Index 100. Most of the compartment had been thinned to waste, leaving 500 s.p.a. at top height 40 ft, with a subsequent thinning for posts at top height 60 ft, yielding 1,350 cu. ft per acre. The usual pruning had been done, with 60 s.p.a. pruned to 36 ft at top height 65 ft. A small plot within the compartment had been thinned from 500 to 200 s.p.a. at top height 45 ft. Subsequent windthrow reduced stocking to 184 s.p.a. Comparative statistics, with those for the compartment as a whole given in parentheses, are:

| Stocking | 184 (225) s.p.a. |
| B.A. per acre | 156 (125) sq. ft |
| Mean d.b.h. | 12.5 (11.6) in. |
| Total stem vol. | 4,075 (2,875) cu. ft |
| Top height | 70 (66) ft |
| M.A.I. | 310 (264) cu. ft |
| C.A.I. | 500 (361) cu. ft |
The next stop was at an intimate mixture of *P. nigra/Ps. taxifolia* planted in 1947 at 6 ft × 6 ft and 100% pruned to 7 ft in 1958. This three-acre trial planting covered a wide variation in site, aspect and slope and it was expected that the assertion of dominance by either species would change with local conditions of site. Some members, after what they had seen at the previous stop, queried the planting of species other than radiata pine. However, site variation at Ngaumu is such that a radiata pine monoculture is not possible.

The Ngaumu visit was the official end of the meeting but a few members took the opportunity on Tuesday to visit what must be one of the earliest and most completely tended plantations in New Zealand. This is on W. B. Hull’s property, “Waierua”, near Tinui. Mr Hull had planted these trees in 1928 and pruned them progressively to a height of 50 or 60 ft—the resulting long clean barrels were an impressive sight (see plate, by J. H. Johns). Average d.b.h. was 23 in. and average height 120 ft. As a result of this visit, it is hoped to organize some special studies on grade recovery from tended radiata, which could be unique for the country.