

EDITORIAL NOTES

Forestry Encouragement Scheme

In April 1970, the new Forestry Encouragement Grant Scheme for private and small company plantings replaced the previous Farm Forestry loan scheme, and by mid-May applications to plant some 42,000 acres had already been received by the Forest Service. The two schemes differ greatly. The loan scheme resulted from a request by landowners for money at a cheap rate of interest for planting trees; the grant scheme appears at first sight to be a rather unsatisfactory substitute method of tax deduction. In the brochure produced to launch it, the "Basis of the Scheme" is set out as follows: "The grants under this scheme are an alternative to the existing tax concessions whereby companies can deduct against current income the cost of planting, maintaining and developing a forest. The grants will be equal to one half of the qualifying expenditure incurred in planting, maintaining and developing an approved new planting programme."

The loan scheme ended up as something of unexpected generosity. Briefly, loans up to \$80 per acre for planting and tending were granted to farmers (not landowners, as originally intended). Provided work was satisfactory, 50% of this loan was written off, and the balance went forward at 3% compound interest until the time of the first major sale. This was a courageous piece of legislation, and was favourably commented upon by agricultural interests who, incidentally, could have administered such a scheme, with their experience of State Advances and Marginal Lands loans. The scheme was quickly copied by two Australian States, and in July 1969 the US Forest Service was introducing a similar scheme to supplement, by long-term lending, the well-tried grants scheme, which had been found wanting in this respect. Dropping the scheme in New Zealand after so short a period, in view of these overseas developments, prompts the thought that it may not have been given a fair trial, for there were three false starts due to some time-consuming delays in altering faults in the original legislation; loans were less readily available during the 1967-8 recession; and finally there was the *Dothistroma pini* scare. There were administrative difficulties too, and one felt the NZ Forest Service, after its first initial venture into the money-lending business, was rather too eager to drop the burden. But it seems possible that, with a more persistent approach, the legal and administrative aspects could have been much simplified, and it now appears that it might have been best had this scheme been retained to supplement the grant scheme now in vogue. There is no doubt that a simple grant scheme, up to (say) 100 acres, or for larger areas where the owner has sufficient capital, is commendable. But for farmers with heavy calls on tax-paid profits, or for city folk with family or business commitments, the 50% grant

might be inadequate, especially when the earliest plantings use up all available resources. This is exactly what the US Forest Service found to be the main difficulty with a grants scheme, and why they had to introduce a supplementary loan scheme. Thus, in New Zealand, the loan scheme could have also been retained to assist applicants for larger plantings when, after the grant scheme had been operated for a few years, they were found to be reliable and competent managers.

There is one aspect of the new scheme which seems hard to justify. It would have been simpler and fairer, if the object of the scheme is to encourage planting of timber stands, to provide a grant with no strings attached, similar to subsidies given to manufacturers and farmers to increase export production. Any land converted from marginal productivity to an income-earning forest must be in the interests of the country, and also contribute to the taxation pool. But according to the basis of the grant scheme, the grants are "an alternative to existing tax concessions". This appears to abrogate one of the basic principles of business, that any moneys expended in the production of goods for profit are deductible against returns, as a cost of production. Under the grant scheme no residual qualifying expenditure can be used as a deduction either at time of planting or when carried forward under the "cost of bush" formula. This means that any farmer, businessman or company participating in the scheme, and having other taxable income, cannot claim any deduction for residual expenses. Other persons, eligible for other types of grants or subsidies, can do so. Thus, the planting enterprise will go forward to the final sale, and, when this takes place, the whole stumpage income will be due for taxation, with deductions for non-qualifying expenditure only — depreciation on plant, fences, etc., repairs and maintenance of roads and plant, and rates. It is generally accepted in Britain that large private plantings have been encouraged because of much more attractive tax conditions than in the grant scheme. After all, it is only a little more cheese in the mousetrap. The spring trips eventually, and the tax is gathered in.

The new scheme is, however, more liberal in some respects. Under the loan scheme the total allowable expenditure was \$80; under the new it is \$240 per acre. Farmers, and some other landowners, with their built-in overheads, are not worried a great deal by "social costs" — housing, roads, and so on; nor is fire control a problem, with grazed land up to the margins of timber stands. Indeed, for most farmers, half the allowable sum would be adequate.

Recent cuts in the allocation of money for new planting by the Forest Service do not allay concern about the money that will be available for planting under the grant scheme. There is obviously a case for dealing with private planting under a separate vote. No mention has yet been made as to how many acres will be allowed each year, nor in what localities, although it is understood that this matter is under action at present. Moreover, it is most desirable that the "stop-go" progress of the loan scheme should be avoided.

However, in spite of these criticisms, the new scheme must result in an increase in private planting of marginal and idle land. Assistance is available to the public generally, and this is as it should be, for money for forestry is not readily available elsewhere. The scheme has clearly been well received by the public. But the thought still persists that, if growers were sure of an economic stumpage, either in the free market, or ensured by a strong marketing organization, and if, in addition, long-term loans were available from a Development Bank, there would be little need for such schemes. A consistently profitable stumpage would be a powerful incentive.

The end of geographical limits to wood exports?

We must applaud the enterprise of the Fletcher Timber Co., which, aided by a powerful consortium, led to the *Cape Wrath* leaving Tauranga in April with seven million board feet of sawn radiata pine bound for Britain — the largest shipment of timber from New Zealand to date. Nor should it escape notice that two further shipments, of like quantity, are planned, and that the bulk of the sale is box grade, for re-manufacture into cable drums and containers.

We have been counting, for many years, on Australia as our major market for sawn timber, but that market has so far given no indication of avid demand for radiata pine, and one cannot overlook the fact that the rate of planting of radiata pine there is about twice that in New Zealand; nor that Europe is now a net importer of timber. Britain is, of course, one of the largest timber importers of any country, with an annual intake of some 4,000 million bd ft, and although the extensive plantations established there since 1920 will in time take up some of the slack, slow growth rates and much trouble from wind over the last few years do not augur well for the future; a large demand for imports will continue for a long time to come. No doubt New Zealand-grown radiata pine, being cheap to produce because of outstanding growth rates, will have a continuing, and perhaps increasing part in these imports. But the margin on what one might term bread-and-butter lines of timber will probably never be large; the initial shipment paid its way because of the scale of the operation.

In view of this, and of relatively rapid growth rates achieved by many other species in this country, should we put all our eggs in one basket? If we can make a profit on selling box grade radiata in Britain, could we not do very much better with western red cedar, oak, eucalypt and other more decorative or expensive timbers? More, could we not do very well with further manufacture into panel products, veneers, knocked down furniture, and joinery? How far could we go with poplars, for example? It is acknowledged that this is rather akin the New Zealand way; we have been used to a very narrow base for our exports — Italian ryegrass and white clover, the Romney sheep and the Jersey cow. Radiata pine, with its docile silvicultural characteristics and versatile tim-

ber, must be numbered among these as the monumental premier production forest species. But we may be advised to ease aside the blinkers a bit to see if there might be a point in growing other species. If we trouble to examine what is already growing in this country, and often thriving, we already have the basis on which sound decisions could be made.

Perhaps, on the other hand, we should forget rich, far-distant markets and supplies of expensive timbers and products, and look more closely at our near neighbours. Well over half the world's population lives not so very far away — in China, India, Indonesia, Japan and south-east Asia. Though the majority of these peoples are relatively poor, demand for forest products is growing rather faster than demand for many other products, and standards of living are rising. One must hope that the financial wizards will in time find a way to help to accelerate the process of economic growth and to ensure distribution of goods to those who need them. What will be the position in thirty years' time, when radiata pine crops being planted now come to harvest? The four able speakers who addressed the Forestry Development Conference in February 1969 all hinted that perhaps our sights were set too low in building up our forests; that there would indeed be a truly gigantic market for exports of timber and other wood products. The rapid increase in Japanese demand this year may be only a hint of things to come, especially as there are signs that exports from the west coast of North America to Japan may decline in the not distant future.

There was almost a fanfare of trumpets when the FDC passed the resolution that "the programme of *de novo* planting . . . should average 52,000 acres minimum per annum over the next 20 years". This was perhaps slightly debunked when Forest Service planting alone totalled 33,335 acres in 1968 and 36,538 acres in 1969. But now it appears that "minimum" was merely a term of "indicative planning", not to be taken too seriously. In fact, it's a rather nice quality of indicative planning that you can take it or leave it, as you wish! No doubt there are very good national reasons for new plantings by the Forest Service to be reduced to 30,000 acres in 1970. It may save money, nominally, but the British Forestry Commission's experience of the cuts imposed by the May Committee and the "Geddes axe" earlier this century tend to the view that there are also substantial losses incurred by a stop-go policy in afforestation. If land is prepared for planting, access roads built, and trees raised in nurseries, curtailment of planting can often mean that money already spent is wasted. Nursery stocks may have to be destroyed, sites re-prepared, potential increment forgone, while interest mounts on the capital cost of unused assets. Forestry is a business, and in this country the capacity for sound planning and effective management is such that it can be an efficient business. It is therefore a pity that political considerations should make it expedient to treat forestry as a sort of economic buffer zone; in bad times to be a means of employing workless men,

often resulting in very high per-acre costs, and in good times to be denied progress in order to "take steam out of the economy".

We know now that we can send wood half round the world and make a profit; there is little doubt that suitable land is not in short supply; we have the skills to establish and manage the necessary area efficiently; the potential market in our near north is of a prodigious size. It would seem more realistic to cut out some of the trimmings — unnecessary pruning, for example — and get on with the rapid expansion of the planted area. It seems highly likely that, not many years from now, we shall be kicking ourselves for not planting twice the current annual programme.

Utilization of beech forests

It is not generally appreciated that national resources of hardwood, especially beech, are equivalent in volume to those of exotic pines. Yet the forest industry has ever paid scant attention to proper utilization of this resource. This is yet another pointer to our historical buyer's market for wood, and our preference for softwoods. How many sawmillers have covered how many square miles of beech-podocarp forest, extracting only the softwoods and leaving the beech to the attentions of platypus beetles and other destructive agencies? Even where beech has been exploited for many years, the standard of recovery from the bush has often been less than desirable. Coming events may enforce increased attention to beech, not only as a national resource, but also to the extensive land areas, often of easy contour and reasonable fertility, on which these forests grow. The Annual Report of the Director-General of Forestry for 1969-70 voices concern that log sales to Japan have reached such a volume that internal supplies of sawn softwood timber a decade or so hence may be jeopardized. J. C. Westoby, in his public address in Rotorua in 1969, laid great stress on the fact that the fastest growing demand for forest products was for hardwood to be used as pulp. Now Japanese buyers are keen to obtain egress into the very extensive reserves of beech in Nelson, Westland and Southland, and even a package deal, including beech chips, coal and ilmenite sands has been mooted. Meanwhile, the Forest Service has already begun to make arrangements for shipment of red beech to Japan.

This opens up a vista for managing these resources previously denied the Forest Service. Some work has been done in the North Island, in north Westland and in southern Nelson; and in western Southland silver beech has been effectively managed, on a small scale, since 1950. But management and silviculture are ever at the mercy of demand, and utilization for sawlogs alone leaves a very large volume of waste in the bush; utilization for hardwood chips, with recovery of the best logs for sawn timber, now proposed, would doubtless more than double the utilizable volume. It is possible that

both the Forest Service and the industry could have done more in the past, both in studying ways of using beech, and also in marketing. For example, it is quite probable that sustained supplies of well-prepared boards of silver (and even red) beech could have been sold at an attractive price in Britain over the last twenty years or more; the highly figured butt logs so frequently tossed on the slab heap could have been particularly valuable if sliced for veneers. These would, however, have been relatively small outlets, while those envisaged at present are very large indeed.

The major question is, therefore, how to manage these lands, and it is pleasing to note the attitude being adopted by the Director-General of Forests, who reported: "A careful study has yet to be made to determine what areas must be reserved for soil and water conservation, what forests should be retained to preserve scenic and recreational values, and how the remaining exploitable areas would be subsequently managed — by conversion to exotic species or kept in beech forest on a sustained yield basis. No commitments have been made and no contracts have been entered into; any proposals advanced will be subject to public scrutiny". Such a policy is unexceptionable. However, there are major difficulties to be overcome: the greater part of the resources are remote from the larger centres of population. Although the Forest Service hopes that management of these resources will help to retain populations in these districts as other avenues of employment decline, the possible scale of the operations may lead to shortages of labour for management, if not for logging. Further, how much land should be set aside for long-term supplies of valuable hardwood timber? Silver beech can be managed in certain areas; red beech, the fastest grower, generally prefers the best agricultural land for full development, and is not an easy timber to handle; while hard beech occupies soils that may be marginal for exotics, and is in addition an unattractive timber and a difficult silvicultural subject. Clearfelling in some instances can lead to degradation of the site, especially on terrace country in Westland. But these difficulties cannot mask the encouraging prospect of developing the full productive potential of a resource so long neglected.

Another kind of take-over bid

Tucked in amongst the other 187 recommendations adopted by the Forestry Development Conference in February 1969 was one reading:

"That as a means of encouraging investment in afforestation by the private sector, the Forestry Development Council investigate the possibility of floating forestry companies (in which the Crown could retain an interest by taking up a shareholding) to purchase selected State-owned exotic forests within a reasonable time before the forests become self-sustaining".

In July a press release from Wellington stated that the Forestry Development Council is examining the proposition. Although nothing concrete has so far been mooted, the proposed sale of private ownership rights in State forests, albeit with the Crown permitted to retain a financial interest (quantum unspecified), is surely something the profession should look at long and critically. Indeed, one might say it is something on which the public — the present shareholders — are entitled to be fully informed, and given every opportunity to express their views.

At first sight, there appears to be an obvious parallel between this proposal and the well-tried operations of the Lands Department, in which major land development by the State is undertaken expressly for private settlement eventually. But the parallel is not close. It is because farms are small that development by the Lands Department was instituted to take advantage of the economies of scale. Forestry development, considered on a regional basis, is now very large scale, while forest industries of the type established in the Bay of Plenty are very large indeed, and tending to increase in size. Thus, while land development blocks, normally relatively small, are parcelled out in farm-sized areas to individuals, in which no difficulties are encountered by using a simple balloting system, the disposal of very large State forest resources to one industrial giant could lead to serious difficulties.

It can, and no doubt will be argued that industrial partnership between Government and the private sector is no new thing; the great log, lumber, pulp, paper complex that is Tasman is in fact just such a venture, and one of the industrial success stories of which New Zealand is justly proud. But in our zeal to extend the benefits accruing from the Tasman type of enterprise, we could well check to ensure we are following broadly similar and equally unexceptionable principles.

When Kaingaroa forest resources were first offered for sale to the public in 1951, the prospectus issued at the time stated in effect that Government policy was to sell the logs at the lowest possible rate consistent with the recovery of growing costs, in order that the processing industries to be established could operate at a high profit level. Government would recoup its apparent loss in selling the logs at concession rates from dividends to be earned by its substantial shareholding in the processing enterprise. It is now history, that, after a far from tranquil early passage, reimbursement from the expected source is now occurring. The investment is giving a handsome financial return; and the taxpayer at large is reaping the twin benefits of prudent management, and timeous investment by Government. The best of both worlds, surely — though it could be noted in passing, the private investor is reaping a similar reward without having to provide more than financial support.

So far, so good; but since about 1963 Government has issued various unobtrusive and little publicized statements indicating it proposes to sell its Tasman shareholding as soon as this

can be done without disrupting other financial interests and institutions. This would give a substantial boost to public revenues; but it would be a "one-off" benefit, leaving Government to negotiate future sales of Crown-owned logs with a hard-nosed industry, financially interlocked with even more powerful forest-based industrial complexes throughout the world. Has the present owner of the State exotic forests — the taxpayer — any guarantee that the same thing would not happen to him again if his asset is controlled by the private sector?

New Zealand, since the days of Richard John Seddon, or even before, has enjoyed, tolerated, or suffered, according to one's philosophical orientation, a larger measure of that somewhat indefinable ideology "socialism" than is general in other lands peopled mainly by descendants of British stock. This attitude finds expression throughout the fields of production, distribution and exchange in our State farms, forests and vineyards; in our railways, airlines, State sawmills and coal-depots; in our financial institutions; and in many areas which are the sole preserve of private enterprise in other countries. Here, some of these ventures are State monopolies; others are overwhelmingly in the hands of private enterprise but with some Government competition acting as a "governor" against exploitation of the uninformed. Most of these State-run institutions are long-standing and, since there are no recorded public efforts to change them, are apparently sanctioned and maintained in operation by the will of the people.

In the sphere of forestry, the local policy has been similar to that followed by our most closely-allied Commonwealth countries — Australia, Canada and Britain. There we find long-term, in some cases centuries-old policy has been to retain the bulk of their forest land in public ownership, with little overt enthusiasm towards its alienation to the private sector. And it could certainly be said that nowhere in the Commonwealth, or probably in the world for that matter, is there greater opportunity than in New Zealand, in the availability of land already alienated, in favourably oriented legislation, in benign climate and soils, or in the ready response of risk capital, for the private sector to create its own exotic forests without impinging on those already created and managed by the Government. Recent legislation concerning leasing of Crown land, and the availability of loans for afforestation, are particularly germane to this question.

Finally, one can't help but view the word "selected" with some apprehension — would the selected forests be the most productive, best sited and financially most attractive, leaving the taxpayer to foot the bill for the poorer, more remote and least financially viable forests?

Not much over a year ago, the Institute came to a firm conclusion about the place and role of the Commercial Division of the Forest Service. The present question is not greatly dissimilar in principle, and no doubt the Institute should form an opinion upon it in due course. It is certainly not too early to ponder the implications of the FDC recommendation.

The so-called unskilled forest worker

In the Forestry Sector Report to the National Development Conference it is stated (para. 112) that "the greatest increase in demand for labour . . . is expected to be for . . . unskilled and semi-skilled workers engaged in new plantings associated with afforestation targets". Indeed, the report of Working Party No. 6, Manpower, frequently reiterates the term "unskilled labour". For example, on page 45, discussing planting, it is stated: "Since this labour is substantially unskilled . . ." Perhaps the Working Party was under the illusion that planting is merely a matter of bunting trees into the ground. Nothing could be further from the truth. Planting, as such, is only part, and not the major part either, of the establishment process, which involves site preparation, planting, blanking and releasing. The most important of these is site preparation, which may involve the use of heavy machinery, chemicals applied from ground or air, felling by powered tools, and the efficient use of fire — a process, rather than an operation, which may be spread over two, three or four years. Indeed, might it not be due to lack of appreciation of the need for skill that some establishment operations are only partially successful, while some are outright failures? It must be agreed that the ordinary forest worker has to learn the skilled use of a wide variety of tools and techniques, and needs to show a degree of versatility that a great many workers, in other occupations, would never expect to equal. Many of the jobs are dangerous, such as bush felling; many require both high output and good quality, such as planting and releasing.

There was also some discussion about fears of a labour shortage in forestry, while recommendation 47 in the Forestry Sector Report of the NDC advocated research into mechanization of, among other things, silvicultural operations. Forestry being a traditional occupation, the amount of labour used is high, and the position is tacitly accepted. But much forestry work is monotonous, and could be mechanized. This in turn, when it eventuates, will lead to the need for not less, but more highly skilled workers.

It must be faced that, if forestry is to flourish, the workers engaged in it must be highly versatile and skilled in the various tasks that fall to their lot. They need to be intelligent and resourceful. The time is past when anyone who has not done much good elsewhere can be considered a suitable forest worker. Moreover, if forest workers are thought to be unskilled, why is it that the Forest Service devotes much time and trouble to training woodsmen? Thus, it would be good policy to take note of recommendation 38 in the Forestry Sector Report: "That more recognition be given to genuine skills, experience and responsibility, through more appropriate wage margins". If the experience of other countries is to be repeated here, it may become more difficult in future to recruit sufficient men of a suitable calibre for forestry work. The experience of the Forest Service with the euphemistically-described "winter employment scheme" is not at all happy

in terms of unit costs. It seems likely that we shall have need of those more appropriate wage margins if greater efficiency is to be achieved. The increasing use of bonus incentive methods of payment, and of contractors, does to some extent overcome the difficulties, but mere high output is not enough, and there is always a need to employ a hard core of expert workmen in all forestry enterprises.

Retirement of Dr M. R. Jacobs

The recent reshuffle in the N.Z. Forest Service resulting from the retirement of three senior officers has been a relatively minor upheaval in forestry administrative circles compared with the "changing of the guard" that has occurred in forest departments in Australia. During 1969-70 the Chief Commissioners or Conservators of four of the six Australian State departments stepped down, and on 24 February 1970 Dr M. R. Jacobs retired as Director-General of the Forestry and Timber Bureau after a distinguished career in Australian forestry as a research worker, lecturer, principal and administrator.

To the Australian timber industry it is probable that his ten year period as Director-General of the Forestry and Timber Bureau has been the most memorable, through his untiring efforts in sponsoring better liaison and understanding between the industry and Government agencies. The *Australian Timber Journal*, in paying tribute to his services in this sphere, records that his influence "has moved forester and processor closer together on a national basis, and locally and internationally brought great respect to the profession of forester".

To research workers throughout the world, his name will forever be associated with his pioneer research on the growth habits of the eucalypts and for the application of these basic principles to the silviculture and management of eucalypt stands. Perhaps not so well known is his pioneer work on radiata pine, carried out while he was a research officer at the Forestry and Timber Bureau between 1934 and 1939. Whilst readily agreeing that these are notable hallmarks of his career, most Australian and New Zealand foresters honour him most as "Doc" Jacobs, the genial, approachable, understanding and illustrious Principal of the Australian Forestry School for 15 years. It was in this capacity that our Institute recognized his contribution to New Zealand forestry when it elected him an Honorary Member. Some 25 New Zealand foresters passed through the School during his period as Principal, and many of them now occupy senior posts in management, utilization and research in both State and private forestry in New Zealand. It is not easy to define or quantify the influence that a professor or principal has upon his students as their reaction may vary according to individual personality, aptitude or interests. As Dr Jacobs was an inspiring lecturer, one might have expected that his influence would have stimulated New Zealanders to persevere more with the establishment of eucalypts in their own coun-

try, but we have remained remarkably insensitive to the attributes of this genus. Thus we must look to factors other than the direct application of his lectures to explain the intangible influence Dr Jacobs has undoubtedly exerted. The answer lies in the quality of the man himself; in his obviously genuine dedication to forestry, in the spirit of enquiry he engendered, in his infectious enthusiasm for discovering why things happen or are, and for the uncomplicated deductive methods he used for solving problems. The philosophy he imparted was that the chief attribute of a good forester is the ability to observe correctly and to deduce intelligently from known facts — how right this is.

In the long term, however, it could be through Dr Jacob's influence as Director-General and Chairman of the Australian Forestry Council that future New Zealand foresters and industrialists will have most cause to remember him. It was he who sponsored the Softwood Forestry Agreements Bill which has provided the finance for the expanded afforestation programme in Australia aimed at self-sufficiency by 2000 A.D. Planting targets for exotic conifers, mostly radiata pine, are ahead of schedule, and this year Australia passed the one million acre mark. If the planting rate of 75,000 acres per annum is maintained, Australia may be well on the way to self-sufficiency for both its softwood and hardwood requirements before the turn of the century. We have good cause to follow these developments closely, for we need to evaluate whether the advantages of the free trade agreement might eventually prove to be a mirage.