

"USER-PAYS" AND THE IMPACT ON FOREST PRODUCE IMPORT AND EXPORT QUARANTINE IN NEW ZEALAND

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(Received for publication 10 July 1989; revision 3 December 1989)

ABSTRACT

Intensive import/export quarantine operations were commenced in 1948 by the Forest Service with costs being met by the taxpayers. The first Regulations came in 1956 and contained a simple schedule of fees. These were extended in 1966 but still covered only sawn timber, box shooks, and timber in round form. In 1986 the Government decided that, under its "user-pays" policy, net funding for forestry services (including quarantine) would be reduced to zero over 5 years. New fee schedules were introduced in 1987 by the Ministry of Forestry. There was client resistance to paying for regulatory quarantine inspections. Some "national good" content was recognised by the Government. The impact of user-pays may initially have had some detrimental effect on import inspection effectiveness.

Some countries do not need phytosanitary certificates for exports. Inspections ceased for these destinations and exporter costs were consequently reduced. At entry ports in Japan and Korea fumigation or some other form of sterilisation is automatically carried out. On the other hand, forest produce exported to Australia must meet very precise quarantine inspection standards, and some other countries demand a phytosanitary certificate based on the International Plant Protection Convention format.

The introduction of user-pays also had an initial impact on forest health surveys. The Government may reorganise border control services.

Keywords: forest produce; quarantine; import quarantine; export quarantine.

INTRODUCTION

The need for a well-organised and efficient quarantine inspectorate to protect the forests, trees, and wooden structures of New Zealand from possible attack by imported insects and pathogens has generally been accepted as essential (New Zealand Forest Service 1964a, b; Thomson 1965; Foley 1980). The idea was first mooted in 1923 (Foley & Barber 1968) but the inspection of timber imports did not properly commence until 1948. Initially, Australian hardwoods were targeted for inspection for termites under the authority of the Forests Act 1949 (s.69). Inspection of export timbers began at the same time (Morgan & Byrne 1957). This followed the premise that if all exporting countries sold only clean, good-quality, forest produce the inter-continental spread of insects and diseases would be minimised. The New Zealand Government was a signatory to the International Plant Protection Convention 1951 which supported this principle.

In the early years, inspection work was at the taxpayers' expense. Fees were introduced in the first regulations governing this work — the Forest Product Import & Export Regulations 1956, Second Schedule, “The cost of inspecting forest produce imported into, or exported from, New Zealand shall be calculated at the rate of 3½d for each 100 superficial or board feet, except that for forest produce in the form of box shooks the rate shall be calculated at the rate of 2d for each 100 superficial or board feet”. There was, therefore, no charge for such items as wooden cable drums, wood and plywood packing cases, crates, and packets. Logs were not exported at that time.

It was obviously easier to target importers and exporters of timber *per se* in order to recover some costs. It was also considered that those groups benefited directly from inspections.

The revised Forest Produce Import & Export Regulations 1966 saw inspection fees extended to include forest produce exported in log form. Cost of Inspection was 1s 3d per 100 cu. ft or 1½d per 100 ft Haakon Dahl measure. Other produce remained as at 1956.

Between 1966 and 1981 several amendments to the Regulations catered for some cost increases as well as for the conversion from Imperial to metric measurement, and currency from sterling to dollars. In 1966 quality control was introduced and worked in conjunction with quarantine export inspections to improve over-all standards. In 1977 an amendment was made to provide for the costs of inspection of forest produce in round form, whether imported or exported, and the term “exported in log form” was deleted (i.e., logs, posts, and poles were grouped together under “round form”). Amendment No. 6 1981/121 was the last made under the guidance of the New Zealand Forest Service. Fees for the cost of inspecting forest produce were then authorised at 44c/m³ for sawn timber, 22c/m³ for box shooks, and 14c/m³ for forest produce exported in “round form”. These fees prevailed until 31 March 1987 when the New Zealand Forest Service was disbanded. Again, no inspection fees were being promulgated for dunnage, wooden packing and pallets, cable drums, and other timber items. The containerisation of cargo (Foley 1980), which had commenced in the 1960s, increased in volume and created new problems for inspectors. From 1948 as trade volumes rose, the numbers of “Timber Inspectors” (quarantine officers) increased, with numbers reaching 40 by the 1960s (Foley 1980).

Since 1948 timber inspection and quarantine work done at the ports (and later at international airports) had been backed by entomologists and pathologists at the Forest Research Institute (FRI). Insects intercepted by quarantine officers were initially identified by scientific officers until inspectors gained in experience and knowledge. Records were kept at FRI of overseas wood- and bark-boring insects which had been intercepted at New Zealand ports (Milligan 1970; Bain 1974, 1977). First records of species of insects and fungi found on living plantation tree species show that new interceptions have averaged 2.2 per annum for insects for the years 1950–87 and 2.4 for fungi for the years 1956–87.

No detailed costs of quarantine inspection operations were published up to 1987. The Controller of Customs was responsible, by regulation, for the collection of inspection fees on behalf of the New Zealand Forest Service but there is no record of this revenue, which probably went straight into the Consolidated Fund. There was

obviously little impact on “users” as the taxpayer footed most of the bill, with the exception of very specific and easily targeted timber imports and exports. Pressures on quarantine officers were of a technical nature only.

NEW GOVERNMENT POLICY

In 1986 the Government decided that, under the “user-pays” policy, net funding for forestry services, including quarantine and other regulatory areas, would be reduced to zero over a period of 5 years commencing 1 April 1986. Discussions on the user-pays policy were held with the Government and Treasury, firstly by the Forest Service until its demise on 31 March 1987 and then by the Ministry of Forestry which became responsible for the Forest Produce Import and Export Regulations 1966 from 1 April 1987. It was thought that, for import inspections at least, it would not be possible to recover 100% of costs. Dunnage is an international commodity bound by international and other agreements such as the Convention on Facilitation of Maritime Traffic 1965. Movement of international air cargo was also bound by agreements and conditions based on international standards and recommended practices on Facilitation (Annex 9) to the Convention on International Civil Aviation 1980. Both dunnage and international air cargo inspections were subsequently assessed as being “in the national interest” and a net funding target of 50% was immediately applied by Treasury from 1 April 1987 for import inspections and funds allocated in the Ministry of Forestry budget. The balance of the total costs of import inspection incurred by the Ministry of Forestry for the financial year 1.4.87 to 31.3.88 had to be recovered from clients through import inspection fees. The only fees in place were those gazetted in 1981. The sums recovered were therefore not large (imported timber inspected at 44c/m³, and, in addition, another agency was legally collecting the fee and that revenue could not be accounted for immediately.

For export inspections the situation was different. No national interest was recognised by the Government and Treasury with the result that the user-pays policy applied and the costs of inspection were to be recovered 100% within a stipulated time frame. This meant that recovery targets for the financial years were—

1987–88	32½ %
1988–89	55 %
1989–90	77½ %
1990–91	100 %

However, some cost recovery was under way with the 1981 fees for export inspection at 44c/m³ for sawn timber and 14c/m³ for forest produce in round form (log, pole, and post exports).

A further major change as at 1 April 1987 was that all quality control provisions for exported forest produce in the Forest Produce Import & Export Regulations 1966 (reg. 24 & 25) were deleted under the State-Owned Enterprise Act 1986. This came about through direct pressure of the timber industry on the Government as a result of user-pays and deregulation policies. The New Zealand Forest Service work over the years had ensured high standards of quality for exported forest produce in conjunction with phytosanitary cleanliness. The forest industry exporters decided that they should now

be responsible for all quality assurance aspects as previously laid down in regulations 24 & 25, i.e., preservation treatment nominated by the purchaser, kiln treatment and records, moisture content, green timber, and antisapstain dip, etc. From 1 April 1987 the Ministry of Forestry was therefore responsible for phytosanitary and quarantine measures only where previously there had been a mix of responsibilities undertaken by the New Zealand Forest Service.

IMPLEMENTATION OF A FULL USER-PAYS POLICY

There was severe consumer resistance to the implementation of user-pays in all areas of regulatory work undertaken by the Ministry of Forestry, and quarantine was no exception.

Imports

Minimal fees had been promulgated for specific classes of timber items since 1956 and the fees gazetted in 1981 were 6 years out of date by 31 March 1987. All other items inspected (packing, pallets, containers, dunnage, etc.) were at the taxpayers' expense up to that time. An efficient scale of fees had to be worked out which would have a minimal cost impact (i.e., be acceptable to industry) and enable the correct revenue figure to be recovered to avoid a penalty from the Treasury and yet enable efficient quarantine inspection work to be carried out as the prime responsibility.

The first essentials were very tight budgeting based on time studies of the inspection operations carried out, overhead costs, volume of trade, and staff numbers required. Inspection fees were minimised. A fee for manifest inspections was thought necessary and administrative and training time were spread *pro rata* over fee items. Revenue targets were then worked out, making allowance for Government support for the inspection of dunnage and international export work. These goals were then translated into the relevant section of the Corporate Plan of the Ministry for 1987–88 as follows—

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|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GOAL 4 | To perform the regulatory function of the Ministry of Forestry to the prescribed standards, at least cost. |
| OBJECTIVES | <ol style="list-style-type: none"> 1. To review, and revise where necessary, standards and procedures covering rural fire administration, forest health, and quarantine services and gain acceptance of these by the relevant organisation. 3. To operate within the 1987–88 budgets and to develop and implement an appropriate charging policy. |
| GOAL 5 | To achieve Ministry of Forestry targets. |
| OBJECTIVES | <ol style="list-style-type: none"> 1. To achieve the following financial targets (incl. of GST) by revenue generation and/or cost reduction.
Regulatory Services \$1,778,000 |

The next step was to work out fees for individual items inspected, and to translate these into regulations through the necessary Governmental processes. Only in this manner could the fees be made legal and enforceable, and cost recovery targets be met. It was not a "willing buyer — willing seller" situation.

Several mistakes were made in the haste to get fees in place before the financial year ended. Targets for 1987–88 had to be met and staff were under pressure. In the first schedule of fees a charge was made for the inspection of manifests and completion of documentation. Shipping companies on whom the charge was made threatened to withhold the ships' manifests, which would have made the search for forest produce almost impossible. Shipping companies as carriers had never previously been included in regulations and did not wish to be included in the interpretation of "importers" in case an international precedent was set. It was logical to target carriers for fees instead of importers as they were far fewer in number but the companies resisted this proposal for a significant period. Different types of tonnes caused confusion for a while ("manifest", "freight", and "revenue" tonnes were all considered) before "revenue tonne" was decided upon as the accepted measure of weight for fee collection purposes.

The reasonably accurate estimation for inspection purposes of the volumes of produce being imported in revenue tonnes for bulk cargo, in cubic metres for timber, in numbers of Full Containers (FCLs), and in revenue tonne volumes for Less than Full Containers (LCLs) was difficult initially due to lack of data. GST and a collection fee for shipping companies were additional considerations (the latter eased the situation as far as fee collection was concerned).

All these factors have been taken into consideration in the schedule of fees included in the new Forest Produce Import and Export Regulations 1989. Items attracting fees have been reduced to a minimum and will be forest produce in sawn and round form, each FCL, LCL cargo, and, for inspections in relation to "other cargo", a fee for each landed item.

The system of working out in advance costs and revenue for all items has distinct advantages. Quarantine inspectors can concentrate on the job in hand of searching for damaging agencies in a prescribed manner. If costs are based on opening containers for "door inspections" problems can occur when it is found that revenue is behind target. More "doors" have to be opened to get more revenue in order to attain budgets. Any shortfall has to be made up in the next year, thus making the job of inspection and cost recovery more difficult. When the costs of inspection are spread over all items imported, costs and revenue are not a problem for inspectors as they are with other methods. Inspections will therefore remain the priority. How import inspection fees for 1988–89 were arrived at is shown in Table 1.

By amendment to the Third Schedule of the Regulations, all fees, including those applied to exports, were made payable to the Secretary of Forestry, viz Controller of Customs. The fees were applied on a national basis.

Exports

As at 1 April 1987, the problems of applying a comprehensive user-pays policy for exported forest produce appeared to be less difficult than those relating to imports. Inspection fees, albeit mostly out-of-date, were still being imposed on both round and

TABLE 1—Estimation of inspection fees

Item	Estimated imported volumes	Inspection time (%)	Revenue required (\$000)	Fee needed rounded (incl. GST)
FCLs	80 000	43.0	669	8.40
LCLs	160 000 t	32.0	498	3.10
Timber	38 000 m ³	10.0	155	3.90
M. Ts	21 000	2.5	39	1.90
Other cargo	100 000 t	10.0	195	2.00
TOTAL		100.0	1,556	

sawn items. Cubic metre measurements were universal and easily obtained. Relatively few exporting companies were involved and it was therefore a simple matter to update fees as necessary, and companies could be invoiced directly. On the other hand, increasing inspection fees over the period 1987–88 to 1990–91 (owing to increasing cost-recovery targets), together with fumigation costs when infestation was found, could have an impact on profitability and competitiveness for exports of sawn timber and logs to the main markets of Australia, Japan, Korea, and China.

An Export Phytosanitary Working Party was set up by the Ministry to enable exporters to discuss inspection costs, budgets, manpower requirements, and increasing cost-recovery targets. The question of whether regulation fees should be applied nationally or on a port-by-port or regional basis needed to be resolved. The national application of fees was considered to be the best option for the Ministry as, in the final analysis, the Ministry is held accountable by the Government on its national goals and objectives. The main problem was how to cope with the changing annual cost-recovery targets. Should the full fee be promulgated (i.e., equivalent to 100% of cost-recovery with Year 1 at 32½% fee and amend to 55% in Year 2 and 77½% in Year 3, etc. In the end a compromise was reached. The 44c/m³ figure already in the Regulations for sawn timber inspection remained in place as equivalent to 32% and roundwood inspections were promulgated at \$1.20/m³, but a 39c/m³ charge was made for 1987–88.

The major impact of user-pays on export quarantine operations came when exporters and the Ministry confirmed in 1988 that Korea, Japan, and China no longer required phytosanitary inspection certificates for sawn timber and logs. Mandatory inspections prescribed in the Regulations were by-passed immediately. Sawn timber now goes to those countries without an inspection; no fees are charged and costs to the exporters are therefore reduced.

An agreement has been reached between the Ministry and industry that a modified inspection of logs be carried out. There will be a report on the presence of termites, huhu, and weevils as well as of fungal attack over and above a certain percentage of infection level. Individual logs are marked for rejection if insects/fungi are found. Industry does not need to accept rejection and can still load for export if it wishes. The inspection is non-regulatory and the cost is reduced. A simple inspection certificate is issued to the exporters except where large quantities of rejects are being loaded aboard, when no certificate would be signed. There is no longer any mandatory fumigation in New Zealand. Pre-shipment treatment of infected logs is at the discretion of the

exporters, and inspection certificates are not required for Korea, Japan, or China. However, an application to export and Customs clearance have to be provided for both exotic sawn timber and logs to these countries as timber is still a restricted export under Customs Regulations 1953.

The strong exception to other countries is Australia. The Australian Quarantine Inspection Service (AQIS) of the Commonwealth Department of Primary Industries and Energy, Canberra, believes that exporting countries should ensure that they are not exporting damaging agencies to their trading partners. The first line of defence is the country of origin. A protocol agreement on sawn softwood will be signed shortly which follows this principle. Ministry officers, as quarantine officers, will inspect forest produce on the wharf before shipment and provide phytosanitary certificates as well as supporting documentation that the agreement has been met. In addition, the Ministry will be responsible for auditing kiln-drying schedules to certify that temperature/time specifications are met which comply with AQIS phytosanitary standards (i.e., 74°C/24 hours), as well as auditing timber preservation standards to ensure that Australian Hazard Specifications are met.

The anomaly in all this is that on some wharves there may be timber and logs going to countries which require no phytosanitary certificate and sawn timber going to Australia where meticulous standards and phytosanitary certificates are required. When insects are present in such circumstances the work of inspectors can be complicated. Another complication could be the movement of rejected logs in ships loading up at two or more New Zealand ports when some insects are present in one port and environs but not in another.

Amended regulations have removed mandatory provisions for export inspection but provide for phytosanitary inspection certification for other countries which consider it necessary. The tight principles previously applied by the New Zealand Forest Service in the administration of the Forest Produce Import and Export Regulations 1966 have therefore been changed under pressure of the user-pays policy for exported exotic forest produce.

The export of indigenous logs and timber is generally prohibited (unless certain criteria can be met) and will not be discussed in this paper.

IMPACT OF USER-PAYS ON INTERCEPTIONS OF INSECTS AND FUNGI

The demise of the Forest Service on 31 March 1987 and the responsibility for the quarantine measures incorporated into the Ministry of Forestry operations on 1 April 1987 looked a very clear-cut transfer on the surface. In reality, the demise of the Forest Service under the environmental restructuring policy of the Government (the establishment of the Department of Conservation, the New Zealand Forestry Corporation, and the Ministry of Forestry) took time to put into effect. Several target dates were proposed for 1986 before the date was finalised for 1987. This created a great deal of uncertainty amongst the staff of the Forest Service as it was not known who would obtain jobs in the new organisation and, indeed, what jobs would be retained.

A number of quarantine staff had also worked for the Forest Service for many years and expected to retire after 30–40 years with that one organisation as a chosen career path. There was a great sense of impending loss. It was a personal matter and people suffered accordingly.

For a while, at least, the quality of work was affected by the changes until such time as the new organisation picked up the processes. Even then, the impact of user-pays took its toll as quarantine officers had to cope with comments on the payment of fees for work which had previously been done free of charge. New staff also had to be recruited. Attempts have been made to measure the impact of change in several ways.

Since the commencement of regular quarantine operations in 1948, every insect or fungal species found during the course of inspection work at the ports has been recorded. The finding of one species of insect in a piece of cargo being inspected (i.e., case, pallet, dunnage) is known as an “interception”. Milligan (1970) and Bain (1974, 1977) have published records of insects found but no such records have been published for fungi. Interceptions of insects for all ports for the years 1985–86, 1986–87, 1987–88, 1988–89 (1 April–31 March) are given in Table 2.

TABLE 2—Interceptions of insects at New Zealand ports, by years

Region*	1985–86†	1986–87	1987–88	1988–89
Auckland	38	57	44	158
Rotorua	44	53	23	45
Palmerston North	68	62	43	182
Nelson	20	10	2	26
Christchurch	38	42	35	53
Dunedin	10	11	5	10
TOTALS	218	235	152	474

* Regions are Ministry of Forestry areas and ports at:

Auckland	Auckland, Whangarei
Rotorua	Mt Maunganui, Gisborne
Palmerston North	New Plymouth, Napier, Wellington
Nelson	Nelson port
Christchurch	Lyttleton, Timaru
Dunedin	Port Chalmers, Bluff

† 1985–86 and 1986–87 New Zealand Forest Service
1987–88 onwards Ministry of Forestry

The number of insect interceptions reported in the last 2 years of the Forest Service increased from 218 in 1985–86 to 235 in 1986–87. There was then a drop to 152 in the first year under Ministry control in 1987–88. The impact of user-pays could have been responsible, at least initially, for the sudden drop in the number of interceptions which increased by over 300% in 1988–89 to 474. It could be argued that perhaps volumes of trade also changed as dramatically over the years in question, but that is not borne out by the figures in Table 3.

There was a decline in the volume of timber imported for 1987 and 1988 but an increase of 150% in FCL (Full Container Load) numbers between 1988 and 1989. However, LCL (Less than full Container Load) volumes decreased due largely to a change in transport mode to FCL.

TABLE 3—Sawn and round timber imported*

Timber imported (m ³)	Calendar year
40 000	1984
43 000	1985
59 000	1986
55 000	1987
40 000	1988

Full Container Loads (FCLs) imported for the financial year	
FCL Numbers	Year ending
40 000	31.03.86
48 000	31.03.87
76 000	31.03.88
114 000	31.03.89

* Ministry of Forestry Statistical Release for year ended 31.12.88 (provisional).

Another test on the impact of change could be made. Quarantine Officers are experienced enough to recognise many intercepted insects. If they are not certain or want verification, a variety of specimens/stages of growth are despatched to the entomologists at FRI, Rotorua, for identification to be confirmed (Table 4). It should be noted that there is no relationship between the number of interceptions at ports (Table 2) and the numbers of samples recorded as received at FRI (Table 4). A Quarantine Officer may record one insect species as an interception from a piece of inspected timber. On full examination at FRI that same piece may yield four different species of insect. FRI would therefore record three more than the Quarantine Officer. There was a drop in samples to FRI in 1986–87 which could be due to the changes in organisation coinciding with the end of the Forest Service and the beginning of the user-pays era but not so strongly correlated with the latter as the example in Table 2 (port interceptions).

TABLE 4—Intercepted insect samples identified at the Forest Research Institute

Region	1985–86*	1986–87	1987–88	1988–89
Auckland	45	51	70	93
Rotorua	50	49	30	43
Palmerston North	51	46	87	97
Nelson	32	13	12	14
Christchurch	41	33	41	32
Dunedin	9	9	6	1
TOTALS	228	201	246	280

* 1985–86 and 1986–87 New Zealand Forest Service
1987–88 onwards Ministry of Forestry

Another group of officers despatching samples to FRI are the Forest Health Officers working in forest areas. It is interesting to note that there was a drop in the numbers of

samples sent to FRI at the time that user-pays was implemented by the Ministry of Forestry. Data are not available regionally but the decrease was probably due to the impact of user-pays as there was a fall in the number of samples to 430 in 1987–88 from 686 in 1986–87 and then a jump to 753 in 1988–89 (Table 5).

Records have also been kept of pathological samples intercepted in imported cargo by quarantine officers for the Ministry (Table 6). It is not possible to obtain Forest Service data for previous years for effective comparison.

The other check on the effectiveness of quarantine measures is the surveillance work carried out by Forest Health Officers and the first records of species of insects and fungi found in plantations, trees, and forests. Work done by FRI shows that a total of 82 new species of insects have been recorded between 1950 and 1987, an average of 2.2 per year. In the period 1956–87 a total of 74 new species of fungi have been recorded, an average of 2.4 per year.

It is not yet known what new recordings there were for 1988 or 1989 but the impact of fewer interceptions in 1987–88 may either never be known or become evident in a few years from now.

TABLE 5—Forest health samples sent to the Forest Research Institute

	1985–86	1986–87	1987–88	1988–89
Entomological	279	195	162	337
Pathological	494	491	268	416
Combined	773	686	430	753

TABLE 6—Pathological samples intercepted by Ministry quarantine officers 1988–89

	1987–88	1988–89
Auckland	3	4
Rotorua	18	20
Palmerston North	3	28
Nelson	4	3
Christchurch	12	14
Dunedin	0	0
TOTAL	50	69

CONCLUSION

As the processes are still developing, this paper gives an indication only of some of the problems resulting from the change from a largely tax-funded quarantine inspection system to one of largely user-pays. The Government recognises a percentage of work as being in the “national good” and provides funding accordingly. This covers the inspection of dunnage and the inspection of wood packaging carried by international aircraft. Events are very recent and time alone will tell what the full impact of the change to user-pays will be on the effectiveness of quarantine.

Indications are that, after some initial problems of change-over between one system and another, work is now being carried out effectively.

It is a moot point whether or not quarantine, as a regulatory operation, should be included in a user-pays policy. Initially, at least, there was severe resistance to the extension of inspection fees. There is an opinion that regulatory work is all in the national interest.

Under user-pays there has been a sharpening of costing and budgeting processes and knowledge of the shipping world which was not previously found necessary. Communications with industry have improved, because there is a need to know how and why costs are incurred. This improved communication will be on-going as amendments to fees and regulations are found necessary, as changes occur in the ways in which goods are shipped, and as documentation changes to computer mode. An efficient system has evolved whereby preset fees enable inspections to be the first priority. Data indicate that there may have been a lessening in quarantine effectiveness during the change-over to user-pays. For the first year of user-pays in 1987-88 there was a sharp drop in the number of insects intercepted at the ports (152) in comparison with other years (235 for 1986-87 and 474 for 1988-89). A fall in numbers was recorded for samples sent to FRI in 1987-88 from Forest Health Officers in comparison with other years. However, the numbers of insect samples sent from ports and identified by FRI show a drop in the last year of the Forest Service rather than in the first year of user-pays.

It is not yet known whether the number of first recordings of insects has increased over the past 2 years. There would in any case be a time lag between the escape of new insects in this period, build up, and first sighting.

The impact of user-pays has been greatest on export quarantine operations. The previous mix of quality and phytosanitary inspections no longer applies. The Forest Produce Import and Export Regulations 1989 have removed the mandatory provisions for the inspection of all forest produce to be exported. Phytosanitary certificates will be issued only when required by importing countries. Japan, Korea, and China do not require phytosanitary inspection certificates for sawn timber and logs, and so inspections of sawn timber to these countries have ceased; a modified non-regulatory inspection is in place for logs but no mandatory fumigation will be carried out. There will, therefore, be financial benefits to exporters.

On the other hand, Australia has asked that phytosanitary inspection procedures be tightened. A protocol arrangement will be signed shortly. Inspections will also be carried out for other countries which require a phytosanitary certificate — India and the United Kingdom have indicated that they require certificates based on the International Plant Protection Convention format. This will mean that there will be a mix of inspected and non-inspected timber on the wharves.

User-pays has, therefore, changed the face of quarantine work in New Zealand.

One big plus has been the interest shown by forest owners and other beneficiaries of import quarantine in the effectiveness of import quarantine operations and in the potential problems which could arise if new and more damaging overseas insects and diseases become firmly established in our indigenous forests and exotic plantations more widely than at present. A timber importer is represented on the Forest Health

Advisory Committee which has been set up by the Minister of Forestry to advise him as forest health is also now based on user-pays.

Only a cohesive effort to ensure an organised, in-depth defence against the import and establishment of undesirable insects and pathogens will be effective. Forest owners and industry wood users, and quarantine officers and scientists of the Ministry must co-operate fully to achieve this end. Changes of organisation and other stresses should be avoided as effective quarantine operations could be weakened and the present improving cohesion lost. There would be no second chance if a very damaging insect or fungus became established.

Since this paper was first presented, Dutch elm disease has been reported for the first time in New Zealand in Meyers Park, Auckland, in December 1989.

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