Message from Kenya

There was no editorial in the February 1992 issue of New Zealand Forestry because your editor was on vacation, being exposed to the multiple contrasts of Kenya.

The way vines twist around trees
No forests spin faster about the world's axis than Kenya's.

At Nanyuki, located exactly on the equator, my safari driver prodded a barefoot toto dozing in the shade of a manual petrol pump. Once awake, this African boy broke into an unexpected physics demonstration. Twenty paces north of the equator water ran out of a hole in his bucket clockwise while as many paces south it ran out anticlockwise. It was like being back at university. He began to lecture about Coriolis's parameters and the phenomenon of geotropic force, explaining how that force not only affected the direction that water flowed out of a plug hole but also the direction wind flowed around high pressure gradients in the atmosphere and the direction that lianes twined around trees.

Kenya also has one of the widest ranges of geographical types in the world, ranging in altitude from sea level to over 5000 metres and from desert, through scrub and savannah, to fertile and well-watered plains. There is a corresponding diversity in its flora. Fans of East African literature by authors such as Karen Blixen and Elspeth Huxley will be familiar with descriptions of flame trees, fat baobabs, thorn trees, grevilleas and wild fig trees. If you climb snow-capped Mt Kenya or Mt Elgon you will also see bizarre alpine plants like the giant lobelia or the endemic tree groundsel.

These are all impressive, but my vote for the most dendrologically interesting Kenyan native plant goes to the sausage tree (*Kigelia africana*).

The sausage tree — *Kigelia africana*
A member of the Bigoniaceae family, *Kigelia africana* is a savannah tree with a rounded crown and low hanging branches. It grows from 9 to 18 metres high in open woodland or riverine fringes and is widely distributed from the coast to 1850 metres above sea level.

The fruit is very unusual, like grey sausages up to a metre in length, hanging from long distinctive stalks and weighing up to 10 kilograms.

The unripe fruits are poisonous but the ripe fruits, although inedible, are baked and sliced to help the fermentation of local beer. The roasted seeds when mixed with beer add flavour and when drunk this mixture is an aphrodisiac. A decoction from the bark is drunk to cure headaches. The decoction from the leaves, on the other hand, is a cure for malaria.

I have never seen this wonderful plant in New Zealand but I expect it could be grown successfully in frost-free parts of the country.

Another indigenous savannah tree common in thornbush country and often growing on termite mounds, which (pun intended) carries the candle, is the Candelabra Euphorbia.

The Candelabra Euphorbia — *Euphorbia candelabrum*
This tree grows to 15 metres with a short thick trunk up to 90 cm in diameter and has a characteristic crown of massive ascending branches.

Like tanekaha, these green branches take over the leaf function, but the branches are also succulent, covered with spines, and contain a sticky white latex. There is an extensive forest of the species on the hillside above Lake Nakuru.

The tree is notable for its lack of usefulness. It is no good for construction or...
firewood, and honey produced from its nectar is unpleasantly bitter, but if you wanted to poison someone you might find latex helpful.

Kenya's podocarps
I do not know how the biogeographers explain it, but Kenya's two principal indigenous quality softwoods are podocarps. They are Podocarpus falcatus and Podocarpus latifolius. You do not have to be much of a botanist to notice close relationships with our New Zealand podocarps. Like our rimu, the male and female trees grow separately and both P. falcatus and P. latifolius have foliage like miro or matai. Except for the presence of elephants or giant wart-hogs, if you are an antipodean three thousand metres up Mt Elgon looking at these handsome podocarps through the fronds of punga-like Cyathea tree fern species you could easily imagine yourself transported magically back to the Tararuas.

Plantation trees of Kenya
Kenya's plantation species are familiar to New Zealand foresters too. Radiata pine represents about 10% of all planted trees in Kenya. (I saw some which Jomo Kenyatta was coerced into planting when he was an internee during the Mau Mau rebellion.) Patala pine accounts for nearly 30% and Cupressus lusitanica over 40% of Kenya's plantations.

Pinus radiata
Some of the radiata pine I saw on the road towards Eldoret looked very vigorous, but according to Noad and Birnie in "Trees of Kenya" it is "unfortunately no longer planted in Kenya following heavy attack by the fungus Diplodia and by woolly aphids. In 1969 further planting around Nairobi was prohibited and trees within the city boundary had to be felled."

Cupressus lusitanica
This has been the most successful plantation tree in Kenya, reaching marketable size in 20 years. It grows best at more than 1500 metres a.s.l. with good soil and fair rainfall. Because of their pizable nature, the pruned branches are in high demand for the construction of lattice work for mud and straw native huts. This means the species is producing ample clearwood.

A message for New Zealand border control services
Unfortunately, all of a sudden, a majority of Kenya's beautiful C. lusitanica stands and hedgerows have begun to die. The devastating mortality is attributed to an unknown pathogen disseminated by a new aphid immigrant from Zambia.

This Kenyan experience with both Pinus radiata and Cupressus lusitanica is a sobering lesson for New Zealand. It is vital that we maintain vigilance on our border and stop any unwanted tree pathogens from entering the country. Unfortunately, the New Zealand Government is doing just the opposite. From July 1, 1992 a significant proportion of the country's current timber inspectors at the ports will be made redundant along with many other Ministry of Forestry staff. (See page 5, MOF to change focus and Asian Gypsy Moth.)

Tree groundsel and giant lobelia on top of Mt Elgon, Kenya.

Introspection and the future of forestry
There is nowadays – or so it seems from a distance – a disturbing air of complacency, as foresters lounge back contentedly in expectation of forestry shares rising and the new planting graph racing for the ceiling.

After all the setbacks of the past, in a culture traditionally frightened of trees, this is perhaps understandable. Not so long ago only a few enlightened farmers would allow trees on their land, politicians were indifferent, and treasury and green economic gurus thundered against long-term investment. In sheep, tourists and Forex gambling lay New Zealand's future

But now it seems a shadow looms to threaten these cherished beliefs. Economically impossible forestry begins to pay the bills. For a summary, read the New Zealand Forest Owners Association "Forestry Facts and Figures 1991" which on page 10 shows the following:

<table>
<thead>
<tr>
<th>Value ($NZMillion)</th>
<th>Land use (Million ha)</th>
<th>Export Earnings/ha ($NZ)</th>
<th>Share of NZ Export Income</th>
<th>Share of NZ Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Forest Products:</td>
<td>1387</td>
<td>1.24</td>
<td>1109</td>
<td>9.1%</td>
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<tr>
<td>Total Agriculture produce:</td>
<td>6498</td>
<td>14.4</td>
<td>451</td>
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<td>Of which:</td>
<td></td>
<td></td>
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<tr>
<td>Meat</td>
<td>2318</td>
<td>*13.57</td>
<td>171</td>
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<tr>
<td>Dairy</td>
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<td>1.39</td>
<td>1484</td>
<td>13.6</td>
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<tr>
<td>Wool</td>
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<td>*11.01</td>
<td>119</td>
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<tr>
<td>Horticulture</td>
<td>800</td>
<td>0.20</td>
<td>4020</td>
<td>5.3</td>
</tr>
</tbody>
</table>

* A considerable overlap, and a very wide range of production, which tends to understate the mean earning/ha.