

always be compatible within that zone and accord with the objectives and policies stated in the scheme statement. Conditional uses relate to uses of land and buildings which may be permitted in the zone at the local authority's discretion, subject to such conditions as the authority may impose. Zoning does not affect the ownership of the land in any way, is not retrospective, and does not prevent the continuation of existing uses (see S 36 of the Town and Country Planning Act 1953), even though the use does not conform to the provisions of the scheme. However, gradual elimination of uses which do not conform may be achieved by restricting the extension of these uses. The provisions of the scheme apply to broad changes of land use rather than to specific management patterns, though land could be zoned for water and soil conservation purposes and this could include conditions on the type of management. This means that, for example, in certain areas of yellow-brown sands already overgrazed or otherwise damaged other legislative powers such as the Soil Conservation and Rivers Control Act should be used to exercise control over land use to reduce damage and the district scheme provisions of the Town and Country Planning Act would provide a supporting role.

(b) Subdivision Control

Codes of ordinances associated with any zone are in the form of regulations and detail the specific provisions which apply to and control the use of land in that zone. One of the regulations is subdivision control. This is important, as the regulation of size of individual lots and the provision of reserves can regulate the density of development and, as an indirect consequence, the intensity of land use.

Under the Second Schedule of the Town and Country Planning Act, local authorities are required to consider, in the preparation of district schemes (*inter alia*):

- 10 "Control of subdivision, including restraint upon unnecessary encroachment of urban development upon land of high actual or potential value for production of food.
- 10a Control of development in areas containing earthquake faults or land likely to be affected by geothermal activity, flooding, erosion, land slip and subsidence and other special areas.
- 11 Land subdivisional standards in relation to any permitted use."

Therefore in considering applications to subdivide land, local authorities should first consider the proposed use in relation to the overall purpose and policies of the zone in which it is located.

(c) Building Line Restrictions

Building line restrictions provide a further form of control and can be incorporated in the code of ordinances. Local authorities have power to fix any building lines because a particular feature, e.g. seashore, river mouth or river bank, is susceptible to erosion. Item 8 (e) of the second schedule of the Town and Country Planning Act 1953 provides for the fixing of building lines for amenity or other purposes.

(d) Designation

Designation under the Act is another technique which could be used by local authorities or by the Crown to ensure the control over those areas where erosion was serious enough to warrant action. Land can be designated in the district scheme - it is land reserved for a particular use or purpose for the benefit of the community. For example land can be designated for soil conservation purposes or for state forest or reserves the management of which could include control of erosion.

Designation of the land ensures that any person dealing with the land has notice that the land is earmarked for a particular public purpose and that the designating authority may, at some time in the future, purchase the land. The consent of the designating authority must be sought before any subdivision or work of any type can commence. Existing use of the land is not affected and a designation does not prevent the sale of the land by the owner. Where any land is designated the Act requires that the land shall, in effect, have an underlying zoning that will come into effect for all development other than the public work for which it is designated.

If the land is designated for a public work or purpose this serves five purposes:

- (1) To signify the public authority's intention to use or acquire land for a certain public purpose;
- (2) To protect the land for the purpose for which it is required by preventing any change in the use of the land which may prejudice the public work;
- (3) To imply a commitment to purchase land for a proposed use at some time in the future, though a designation is not an order to sell land to the public authority (this is actioned under the Public Works Act 1928) or to give vacant possession to the designating authority;
- (4) To enable existing public and private development and intended development to be integrated;
- (5) To enable conflicts between public and private interests to be resolved by the objection and appeal system.

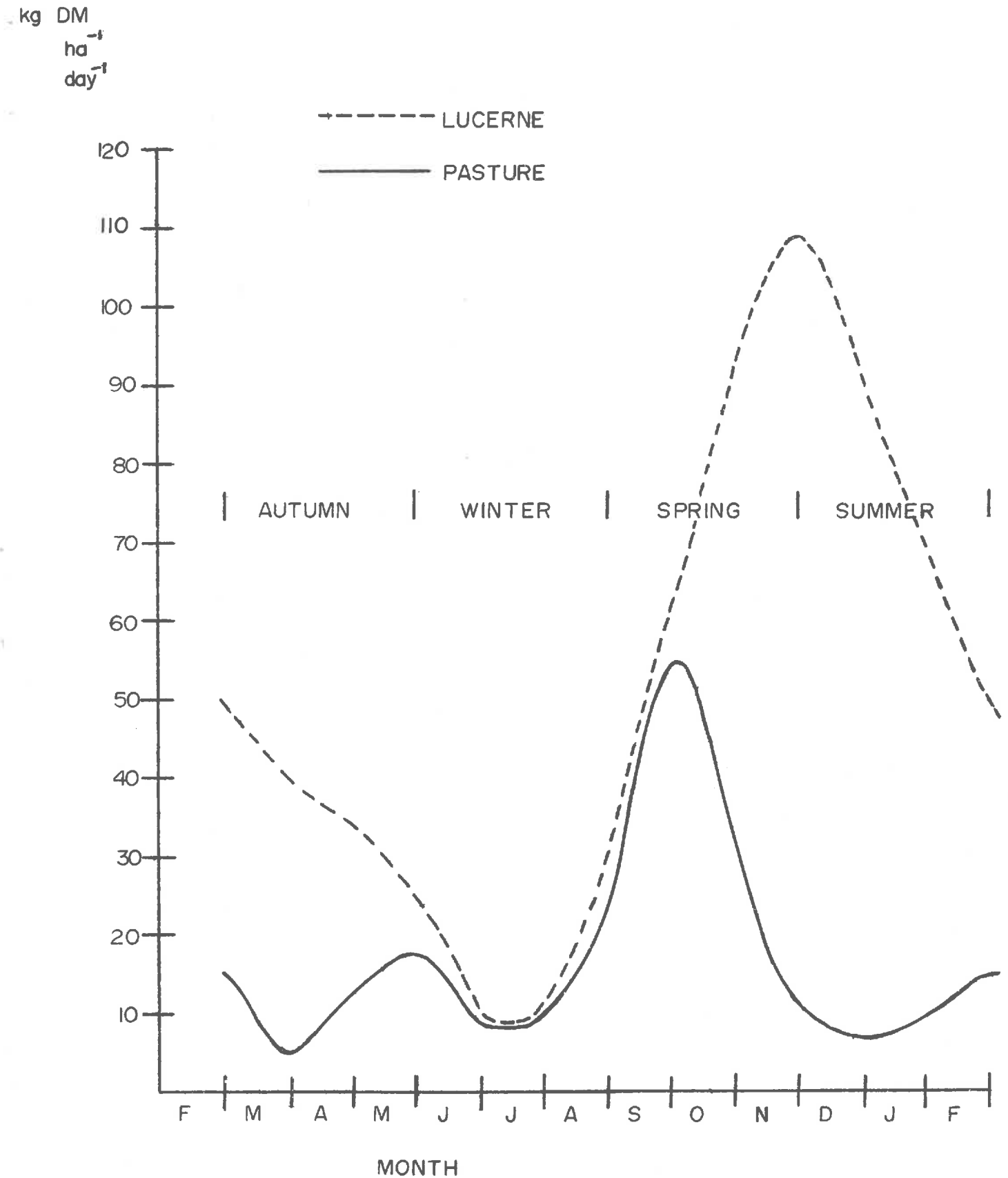


Figure 1 Seasonal rate of growth pattern - pasture and lucerne on Himatangi sand, Flock House Field Research Area (mean of 2 years).

Lucerne, because of its limited area, is grown primarily for hay, but it also provides valuable grazing in winter, early spring and summer as a secondary spin-off. A greater area of lucerne (by itself or associated with grasses such as Matua prairie) could turn the emphasis to grazing, a role it can, and should, play.

Forestry plays more than the dual role of erosion control and timber production; it shelters sand country from drying winds and gives a grazier confidence to establish new pastures and lucerne. Production woodlots are used now for limited grazing but this could be further extended to forest grazing - trees planted at wider spacing with grazing throughout the life of the stand.

The objectives of one young sand-country farmer typifies a trend. He bought a farm in 1968 which wintered 8.9 livestock units per hectare. Six years later he lifted this to a peak of 13.3 livestock units per hectare which produced 112% lambing, fattening all his wether lambs and keeping ewe lambs for replacements. His new objectives for the 1976 season are to reduce sheep and cattle to a more moderate 9.9 livestock units per hectare wintered, and to aim for a 130% lambing. In addition he wants to mate his heaviest ewe hoggets. He has 7 ha in *Pinus radiata*, and there is scope for a further 14 ha. He has 5 ha in lucerne. Although there are obvious advantages to having more trees, to eliminate sand erosion and to increase the attractiveness of the farm, he is more interested in quicker returns from investment in drainage, fencing, water supply, pasture improvement and more lucerne.

Future development in sand-country farming will focus on lucerne, pasture improvement, the wider adoption of improved grasses and grazing management systems. In spite of specific limitations of soil and plant, sand country has the potential for producing more feed to raise livestock numbers and performance.

THE HORTICULTURAL POTENTIAL OF THE MANAWATU SAND COUNTRY

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Horticulturally, the Manawatu Sand Country appears to be a totally untapped resource. An important reason for this lack of exploitation is undoubtedly the high irrigation need of this land in summer, combined with the absence, not only in the Manawatu but also throughout New Zealand, of a tradition of irrigation agriculture and irrigation horticulture.