

## NOTES

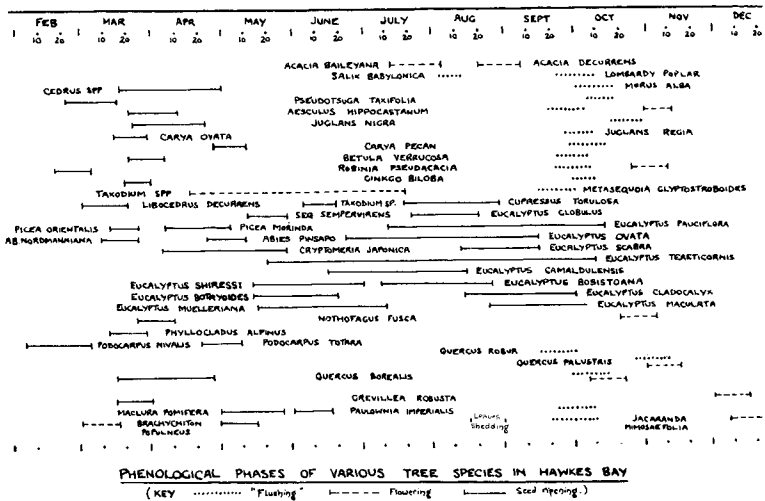
### SOME PHENOLOGICAL NOTES FOR HAWKE'S BAY

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It is hoped that these notes will stimulate the wider observation and recording of data on seasonal characteristics of our forest trees. Until foresters have amassed sufficient statistics for New Zealand we will continue to be dependent largely on reference works written for the northern hemisphere, and on second-hand interpretations therefrom.

Quite apart from the value of this information for any ultimate determination of interrelationships between physical environment and specific seasonal cycles, there are several applications of immediate practical concern to the forester:

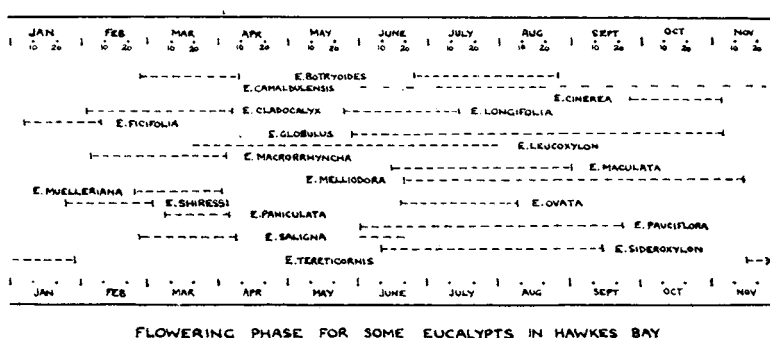
i. Seed collection presents what is perhaps the most obvious application. Hitherto much of our annual seed requirement has been imported from overseas. Except for such staple lines as *Pinus radiata*, *Cupressus macrocarpa* and Douglas fir, we have not been greatly concerned with seed-crop ripening dates and optimum periods for collection. However, with the current move towards a greater variety of species (particularly in farm forestry) and towards self-sufficiency, the need for more accurate data is manifest.



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ii. There is also increasing awareness of the importance of restricting seed-collection to only the best stands and individuals of any species. Such careful selection of seed-source must, for certain groups, extend beyond simple selection of the best phenotypes. The frequency of hybrids in the *Cupressus-Chamaecyparis* group is well-known, resulting in the wide diversity of growth, form and timber-performance that now confuses our use of these species. The red oaks (*Erythrobalanus*) are similarly prone to hybridism; while certain groups among the eucalypts (notably the boxes and ironbarks of the *Porantheroideae-Terminales*) have been shown to constitute an interbreeding complex. In their native habitats many of these species are spatially isolated from each other. Introduction into New Zealand has frequently destroyed this barrier to cross-pollination. Fortunately some of the temporal barriers connected with seasonal activity remain; but it is essential that the existence and reliability of such barriers be determined for each species and locally for each seed-source within these groups.

iii. A very different but equally important phase for observation



is the period of bud-break and foliage "flushing". To the orchardist such terms as "bud-break", "early pink", "petal fall", etc., are of vital significance for the health of his crop and the quality and weight of his harvest. For the forester similar phases may determine, for example, liability of ash and larch to frost-damage, slash pine to terminal die-back or susceptibility of various conifers to needle-cast diseases. Differences in these phases may also constitute the earliest apparent (and ultimately even the most important) characteristics of different provenances of a species. Our understanding of them can, in fact, be vital for the success or failure of a plantation.

The data presented in calendar diagrams on pages 128 and 129 have been summarised from observations made in Hawke's Bay

during the years 1954-58. Although only preliminary in scope and application they nevertheless exhibit considerable divergence from the phenological characteristics of the same species overseas. Correlation of these observations with other districts can be effected through such widely-dispersed clonal lines as Lombardy poplar, weeping willows and the hybrid Schreiner poplars. Greater precision of dating can be achieved by using a group of individuals (differing slightly each from the others) to give an easily defined comparative datum, rather than one based solely on personal judgement of one instant in a more-or-less continuous process.

## CORRESPONDENCE

### GENETICS IN SILVICULTURE

The Editor,  
N.Z. Journal of Forestry.

Dear Sir,

In reading through Vol. VII, No. 4 of your excellent journal, I encountered a review of GENETICS IN SILVICULTURE by C. Syrach Larsen. I think that your reviewer has devoted far too much time to the translator and his attitude to genetics, of which your reviewer is entirely ignorant, and far too little to that of the author. I am not aware that I have ever claimed to be a geneticist but I do make some pretension to be a silviculturist and the reason why I agreed, after considerable hesitation, to translate Dr Larsen's work, was that I thought that it would be an extremely valuable work for the practising silviculturist. Not being a geneticist, I could not presume to know whether geneticists would think so highly of it. What my own attitude towards the relationship of genetics to silviculture is, I have not expressed in print so far as I am aware.

In fairness to Dr Larsen, I would say that after considerable discussion with him about the title, I persuaded him to adopt that of "Genetics in Silviculture" for the very simple reason that the book, in my opinion, was excellently written to put before non-geneticists the present position in respect of forest tree breeding. Anyone reading the book will admit, I think, that Dr Larsen does definitely suggest that genetics may have a place in silviculture. Your reviewer unfor-