

Ninetieth Birthday of WOLFGANG LANGNER

On September 26, 1996, WOLFGANG LANGNER celebrated his 90th birthday. In the name of the forest genetic community, I wish to convey to him our congratulations and very best wishes.

The personality of W. LANGNER and the wealth of his merits have already been recognized on the occasions of earlier "round" birthdays¹). Nevertheless, the appreciation of scientific achievements is subject to change in the light of a progressed state of knowledge.

W. LANGNER'S professional life has been successful. Almost 50 years ago, he founded the Institute of Forest Genetics and Forest Tree Improvement in Schmalenbeck (now Großhansdorf) and was its director for 22 years. During that time, he led the institute in a somewhat unconventional way, which made it both rewarding and enjoyable to work there. He was able to rouse the interest of many people in the newly emerging field of forest genetics.

Forty-five years ago, in 1951, he founded this journal which initially was named "Zeitschrift für Forstgenetik und Forstpflanzenzüchtung". Having enjoyed a classical education, he later gave the journal a Latin name. Although at that time the breeding of trees received primary interest, the name "Silvae Genetica" certainly anticipated future developments. This name has provided a welcome stimulus for the ever-growing proportion of publications on genetic topics and integration and application of genetic knowledge in breeding.

W. LANGNER'S adviser during his university work in Tharandt, Saxony, was E. MÜNCH, professor of forest botany with a strong interest in genetics. LANGNER'S doctoral dissertation was on the wood of spruce, and he later published more papers on this species. Other publications were devoted to problems in pathology and the genetics of pine and *Chamaecyparis*. Several times, W. LANGNER reported on achievements in the improvement of poplars, which long before the advent of non-conventional breeding were considered to be a group of model species.

However, W. LANGNER probably published more on larch than on any other species. Having read about the Dunkeld hybrids, he concentrated on the artificial production of hybrids between European and Japanese larch. The 2 species turned out to be fully interfertile. Although the hybrid progenies differed widely, on the average they had lower mortality, grew faster, and formed denser wood than either of the parent species. On this basis, W. LANGNER conceived and established a seed orchard for the mass production of hybrids. A large collection of Japanese larch clones, which had been selected in their natural habitat, was interplanted with a clone of European larch that was known to be a superior "hybrid combiner". Seed produced in such an orchard contains a high percentage of hybrids, as could later be shown by other authors with the help of biochemical-genetic markers. The importance of collecting extensive scion material of both species and of keeping hybrid progenies separate are lessons to be learned by hybrid breeders from this project.

Besides all this, W. LANGNER has always taken an interest in the development of the methodology of tree breeding. In the 30s and 40s, he advocated a low-intensity approach, which concentrated on the selection of single trees and stands and genetically appropriate measures for their thinning. The necessary precondition for the success of this approach is intensive forest management and silvicultural treatment of tree populations. W. LANGNER also proposed the planting of seed-production stands, particularly in larch, in the 40s.

In 1957/1958, W. LANGNER outlined principles of forest tree breeding in a sequence of 16 papers in the journal *Allgemeine Forstzeitschrift*. In this non-technical introduction, which is of remarkable clarity, he further elaborated on the specific requirements of tree breeding in comparison with the breeding of agricultural crop plants. In many papers, W. LANGNER has dealt with the relationship between forest genetics and silviculture. This included ways of introducing breeding results into practical forestry. What has to be considered as more important nowadays is his interest in the genetic implications of silviculture. In this context, W. LANGNER also discussed consequences of the drastic reduction in density of planted stands as compared to natural conditions of regeneration.

The presentation of some of the highlights of W. LANGNER'S activities would be incomplete without mentioning his concern with the legislation on forest reproductive material in the mid-50s. Despite his criticism and that of other competent persons, such a law was issued in this country in 1957 and later became the essential part of the EEC Directive 66/404. This in turn has since then become binding law for the greater part of Europe. It will, therefore, be difficult to amend its shortcomings, which were already pointed out in the 50s but nevertheless persist just as if no forest genetic research whatsoever had been done during the past 40 years. One may hope together with W. LANGNER that future generations of foresters will study those early papers and make legislation compatible with the status of knowledge in forest genetics.

W. LANGNER is a pioneer in the field of forest genetics. However, he has not confined himself to just providing suitable research facilities for his colleagues, planting long-term field experiments, raising funds for students, and creating a well-reputed international journal. He also contributed major publications such as the first report on dispersal distances of effective tree pollen. This was investigated using a morphological marker almost 20 years before biochemical-genetic markers were introduced into forest genetics research.

One can speculate whether it was modesty or the author's intention to reach a wide practical readership that moved him to publish a considerable part of his papers in non-technical journals, not to mention his predominant use of German.

Those who had the opportunity to attend the birthday celebrations in both his home and his former institute were delighted, when W. LANGNER addressed his well-wishers with modest words of thanks. He gave a thoughtful overview of his active life and the development of the scientific field, to which he has devoted many decades of his life. Several former colleagues obliged with anecdotes of their joint struggle for the sake of forest genetics.

The readers of this journal express their warmest wishes to W. LANGNER and his family. May he long continue to enjoy life in his beloved home and arboretum in Ritzerau!

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¹) Previous acknowledgements of W. LANGNER and his life's work have been published in *Allgemeine Forst- und Jagdzeitung* **138**, 1967, p. 64 and in this journal (*Silvae Genetica* **20**, 1971, pp. 53–54 and **25**, 1976, pp. 149–150). A list of his publications is available on request from the editorial office of this journal.