

THE SELECTION BREEDING OF EXCELLENT CLONES OF *POPULUS TOMENTOSA*—AN EVALUATION OF PRODUCTIVITY, GENETIC STABILITY AND ADAPTABILITY

Gu Wanchun

(The Research Institute of Forestry CAF)

Abstract A system analysis was made on the successive eight-year growth data of site experiments on clones of *Populus tomentosa*, and the evaluation of productivity, genetic stability and adaptability was conducted. There were 5 faster growing clones, 3 of which had higher genetic stability and adaptability and were adapted to be cultivated in two ecological areas. Two clones and the controlled clone were genetically less stable, which were only suitable to be extended in limited areas owing to their special adaptability. According to the multiple ranging analysis, the 11 evaluating parameters could appropriately be incorporated into 3 catalogues which were independent to each other and had the same effectiveness in evaluating the productivity, genetic stability and adaptability. For effectiveness and computing conveniences, either one of the following parameter groups is recommended to be adopted in evaluating: (1) \hat{c}_i , $\hat{\chi}_{PB}^2$ and b_i ; (2) $\bar{x}_{i..}(\hat{c}_i)$, $\hat{\lambda}_i$ and $\hat{\alpha}_i$.

Key words *Populus tomentosa* clone; genetic stability; adaptability

赴蒙沙棘考察简况

根据中蒙科技合作协定, 中国沙棘考察团一行4人(中国林科院林研所副研究员黄铨、赵汉章、王博英, 磴口实验局工程师宗队), 于1989年12月18至31日, 在蒙古人民共和国进行了为期两周的考察。由蒙农业及食品加工部接待。先后参观了乌兰巴托市城建苗圃, 国家农业及食品加工部乌兰格木农业科研及生产中心的沙棘园、沙棘采穗园、苗圃、加工车间及采集果实现场; 参观了国家自然环境保护部研究院的树木园、生产性苗圃及沙棘成年植株的生长状况。与从事沙棘研究的主要专家、蒙古工业学院前院长奇·阿伯戴教授, 乌兰格木农业科研及生产中心科研处主任、国家银质奖章获得者伯·拉更教授、中心主任德·宝勒吉副教授, 农业及食品加工部农科院科技处主任那楚格道尔吉副教授等, 先后举行了座谈和讨论, 共同探讨和相互交流了沙棘研究和生产中的有关问题。考察工作结束后, 蒙古国家科学技术及高等教育委员会国际合作部主任达·雅达木斯仁会见了考察团全体成员, 并对有关深入合作的问题交换了意见。

(林雁)