Cone-Shaped Pots for Straight-Root-Type Tree Seedlings®

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In Japan, the circling of roots in pots is a troublesome problem in production of straight-root seedlings of tree species used for the purpose of greening of highway slopes. When transplanting seedlings, some of the circling roots must be cut off. This decreases the survival rate of transplanted seedlings. To solve this problem, I tried to improve the sowing pot for the tree seedlings. I received much valuable advice from Dr. Yoshichika Takeuchi, professor emeritus of Tottori University, and I made a cone-shaped pot with unwoven cloth (50 g·m $^{-2}$) with a volume equal to a 9-cm-diameter pot (volume about 350 ml; Fig. 1).

Four tree species, *Quercus glauca*, *Rhus succedanea* L., *Celtis sinensis* Pers., and *Mallotus japonicus* (L.f.) Müll. Arg., were tested. I sowed tree seeds directly into the soil in those pots. After 1 year of observation, roots had straight and vigorous growth, and no circling roots were found. I think that this cone-shaped pot is suitable for propagation of straight-root-type seedlings of tree species (Fig. 2).



Figure 1. Cone-shaped pot.



Figures 2a and b. Seedlings of $Quercus\ glauca$.