

Exotic tree species in Icelandic forestry

Þróstur Eysteinnsson

Division Chief, National Forests, Iceland Forest Service

Only three tree species are native to Iceland, of which only one, *Betula pubescens*, is fairly common and forms forests. They are all small in stature, usually slow-growing and often crooked or shrubby in form. Using exotic species in forestry provides a great number of opportunities that the native species do not provide or at least not as well. This includes timber production, afforestation of degraded and eroded land (with forest as opposed to scrubland), much greater diversity in amenity forestry, fast-growing shelterbelts and provision of ecosystem services such as carbon sequestration.

Even though a large amount of native birch and rowan is planted, the bulk of afforestation planting is done with exotic species. The most important exotic species are Sitka spruce, Russian Larch, lodgepole pine and black cottonwood, but over 20 other tree species are regularly planted.

Most afforestation areas have multiple-use goals and most are planted with a mix of several species. It is mostly where the aim is reclamation of native birchwoods that we find monocultures.

Use of various tree species in afforestation is in a constant state of flux. For example; planting of native birch, Sitka spruce, rowan and stone pine have been increasing in recent years while planting of larch, sitka alder and willows has declined. If the climate warms as predicted, sitka spruce is likely to become even more important in production forestry, with lodgepole pine as a nurse species to ameliorate infertile soils and black cottonwood or hybrid poplars on more fertile sites. Larch will continue to be important, especially on poor sites and at higher elevations. Broadleaved species such as sycamore, elm and Sorbus species are already becoming more important in amenity forestry and there is a great interest in fruit trees as well as oak, although experience with them is still very limited. Shelterbelts will also become more “Danish” in character, with longer-lived trees replacing willows. The future is bright for exotics in Icelandic forestry.