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RECENT RESULTS OF INTERPROVENANCE CROSSES IN SWEDEN  
AND THE IMPLICATIONS FOR BREEDING

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The paper summarizes the interprovenance crossing work with Norway spruce (Picea abies) and Scots pine (Pinus silvestris) carried out in Sweden between 1954 and 1970. Interprovenance hybrids of Norway spruce between Swedish and central-east European provenances are generally not heterotic. Considerable variation exists between specific hybrid progenies, in respect to growth, hardiness and adaptability to local climate so that exceptionally useful combiners can be selected. It is suggested that the specific combining effects in interprovenance hybrids of Norway spruce could best be utilized by mass producing the hybrids in two-clone seed orchards.

In Scots pine, specific combining ability is low and there is little evidence of superiority of interprovenance hybrids. For this species it is suggested that recurrent selection of intra- or close interprovenance combinations from multi-clonal regional seed orchards would be most satisfactory.

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