

Position statement: Climate change and local origin stock

The East Midlands Local Origin Seed Initiative has been set up to create a supply of trees and shrubs of researched local origin and enable organisations to include a percentage of locally sourced stock in their planting schemes. Once established, it should become a key tool in the implementation of regional Green Infrastructure objectives.

Trees and shrubs of ‘local origin’ are those that are sourced from the same local area in which they are to be planted.

Planting trees and shrubs of local origin has many advantages, including:

- The ancient woodlands from which they are sourced have adapted to changing local conditions over many hundreds of years.
- Trees of imported origin or provenance may come into leaf and fruit at different times to locally-sourced stock, potentially upsetting the fine balance between native trees and the wildlife they support.

However, there is now little dispute that the climate of Britain is changing. The extent and rate of this change is uncertain, but research undertaken by organisations such as Forest Research indicates that the natural ranges of certain tree species may change over time. Therefore, if we were to solely plant trees of local origin, we would effectively be putting all our eggs in one basket in the face of climate change.

The Forestry Commission has stated that *“there is a general need to accept that there is no single answer and that the situation is a dynamic one which requires potentially different approaches through time... The use of static concepts, such as seed zones and possibly habitat types, will need to be reviewed to ensure that woodland managers have access to sufficient genetic variation in their planting stock.”*¹

Therefore, the partners in the East Midlands Local Origin Seed Initiative believe that the best option is to use local origin stock as part of a ‘Portfolio’ approach, whereby a mixture of provenances are used in planting schemes. These should include those provenances seemingly most suited to projected future climate conditions together with locally-sourced stock, which is best adapted to current ecological and climatic characteristics.

As a further safeguard, our protocols for the collection of seed for local origin stock require that it be collected from a minimum of three different locations to ensure local genetic diversity. We believe that such an approach will increase the adaptive genetic variation found in woodlands, while minimising risk and creating robust landscapes that are best equipped to cope with the challenges of climate change.

As research is continuing to build our knowledge of the potential effects of climate change, we will continue to review our position on the use of local origin stock to reflect the latest best practice. If you have any queries or require further information about the Initiative, please contact the Project Officer on 01509 634933 or localseed@charnwood.gov.uk.

¹ HUBERT, J and COTTRELL, J (2007) The Role of Forest Genetic Resources in Helping British Forests Respond to Climate Change *Forestry Commission*