

The importance of gardening methods -

Laying out a garden in harsh climate

Elisabeth Öberg, Rural Business Development Ltd, Öjebyn Research Station.
SE-943 31 Öjebyn, Sweden.

Laying out a garden is a long term, successive work that takes time. In northern Scandinavia and Finland as well as in islands like Iceland, Orkney and Shetland it is a risk that sensitive, but interesting, plants get damaged already the first year if they are planted in open, exposed sites.

Framework

Always start to frame the plot with protective "outer walls" with hardy, climatically adapted plants to create a good microclimate. With these walls it is possible to catch the heat of the sun and stop cold winds from chilling the garden. During the winter time it is the snow we want to catch, our best insulation against the cold. Salty winds from the sea can be another problem. In my example from the north Swedish coast, westerly winds are dominating during most of the year together with cold northerly winds during the winter. Therefore it is recommended to build strong shelters towards west and north. This can be done with really hardy plants (table 1.), but of course also with fences of wide planks. In that case a combination with trees and shrubs is the best to avoid turbulent wind whirling into the garden over the fence. In the shelterbelt it can be recommended to mix large shrubs with some larger trees raising their crowns above the hedge. That gives a better shelter that stretches further into the garden (about five times the height of the shelter) and less turbulence. The trees should not be planted too close to each other not to shade shrubs planted under. Use several species and cultivars to get a more varied "wall" with different leaf forms, different shades of green and autumn colouring as well as time of flowering. It is a good choice to use some wild growing species here.

TABLE 1. Hardy plants for shelter in the western and northern "outer walls" of the garden. Some examples of good plants for northern Sweden and from the NPNP project.

Latin name	Common name (English)	Origin (or if NPNP-plant)
<i>Malus baccata</i> . <i>M. baccata</i> 'Linnanmaa'	Siberian crab apple	South Korea. NPNP-Finland
<i>Prunus padus</i> 'Anne'	European bird-cherry	NPNP-Finland
<i>Salix pyrolifolia</i>	Pyrola-leaved willow	Kemi river, Finland
<i>Salix viminalis</i> 'Katrin'	Common osier	Kiruna, Sweden
<i>Sambucus kamtschatica</i>	Red-berried elder	NPNP-Sweden
<i>Sorbus x koehneana</i> - crossing	-	Öjebyn Res. Station, Sweden
<i>Syringa x prestoniae</i> 'Elinor'	Preston Lilac	Common nursery stock

Towards east and south the shelter should be lower. As we want to let the sun into the garden but do not want full view from the street outside. The easiest way is to choose lower plants that can form a freely growing hedges or shrubberies (table 2). Of course it is possible to use larger shrubs and form a trimmed hedge.

TABLE 2. Suggestion of plants for hedges/shrubberies in the eastern and southern outer walls of the garden. Some examples of good plants for northern Sweden and from the NPNP project.

Latin name	Common name (English)	Origin (or if NPNP-plant)
<i>Cornus alba</i> 'Luleå'	Siberian Dogwood	Öjebyn Res. Station, Sweden
<i>Lonicera involucrata</i> 'Lycksele'	Twinberry Honeysuckle	Öjebyn Res. Station, Sweden
<i>Rosa glauca</i> 'Nova'	Red-leaved Rose	Öjebyn Res. Station, Sweden
<i>Rosa</i> 'Örtträsk'	"Örtelius Rose"	Öjebyn Res. Station, Sweden
<i>Viburnum burejaeticum</i>	Manchurian Viburnum	NPNP-Sweden

Viburnum edule	Highbush Cranberry	NPNP-Finland
----------------	--------------------	--------------

A low framing hedge around the parking place or around the balcony is sometimes desirable. These plants must tolerate high snow pressure (table 3). Something that flowers on the annual shoot and can tolerate hard pruning. In areas with more extreme climate it is also possible to choose perennials (herbaceous) for this purpose. Where the shrubs are not exposed to high snow pressure other, more sensitive, low growing species can be selected.

TABLE 3. Low growing plants in sites with high snow pressure. Examples from northern Sweden and the NPNP project (from the “lecture slide show”).

Latin name	Common name (English)	Origin (or if NPNP-plant)
<i>In sites with high snow pressure</i>		
Aconogonon sp.		Common in north of Sweden
Sanguisorba tenuifolia	Asian Burnet	NPNP-Sweden
Spiraea japonica ‘Norrbottnen’	Japanese Spiraea	Öjebyn Res. Station, Sweden
Spiraea x billardii	Billard's Spirea	Common nursery stock
<i>In sites with low snow pressure or for ground cover</i>		
Lonicera chamissoi		NPNP-Sweden
Potentilla fruticosa ‘Micrandra’	Shrubby Cinquefoil	Old variety, Germany
Ribes laxiflorum. R. laxiflorum ‘Lukka’	Trailing Black Currant	NPNP-Sweden. NPNP-Iceland

Furnishing the garden

Now when we have built a frame of reliable and hardy trees and shrubs, and with that created a better microclimate inside our garden, we can now furnish with shrubberies, flower beds of perennials and small trees and our chances to succeed with more sensitive species will increase. We can of course create smaller rooms for different purposes; a kitchen garden, a Japanese corner etc. A garden should not be static but change characters and colours throughout the seasons. It should be decorated with plants of different height, flowering periods, colours of leaves and twigs etc. (table 4.). Of course we can use cultivars and species from the “outer walls” for this purpose too (table 2 and 3.).

TABLE 4. Examples of plants for furnishing the garden. Examples from northern Sweden and the NPNP project.

Latin name	Common name (English)	Origin (or if NPNP-plant)
Laburnum alpinum	Scotch Laburnum	NPNP-Orkney
Philadelphus x sp. ‘Torunn Hyrna’	Mock Orange	NPNP-Iceland
Phomium cookiana	New Zealand Flax	NPNP-Orkney
Rhododendron ‘Helsingfors Universitet’	“Finnish Rhododendron”	MTT/Mustila, Finland
Rhododendron dauricum v. sichotense	Dahurian Rhododendron	BIN–St. Petersburg, Russia
Rosa koreana		NPNP-Sweden
Rosa moyesii		SBH, Iceland

Literature

Aldén, B., Ryman S-G. 2009. *Våra kulturväxters namn, ursprung och användning*.

Forskningsrådet Formas, Stockholm.

SKUD – Svensk kulturväxtdatabas <http://www.skud.se/>.

Öberg, E. 1999. Buskar för den nordsvenska trädgården. *Fakta trädgård Fritid nr 72 1999*.

Sveriges Lantbruksuniversitet, Informationsavdelningen, Uppsala.