



Clean and green for seventeen

Air Quality Challenge

**Plants to capture and mitigate
particulate air pollution**

The plants listed below are taken from the Imperial College study, *The role of shrubs and perennials in the capture and mitigation of particulate air pollution in London*, Kyle Shackleton, Nigel Bell, Hannah Smith and Linda Davies, or they share the same characteristics, such as hairy leaves or stems, and/or many small leaves and are preferably evergreen. These characteristics help trap air borne particles. The plants selected are also nectar or pollen rich and so are also good for bees and other beneficial insects.

Species	Height and spread	Conditions
<p>Convolvulus cneorum <i>Silverbush</i></p>  <p>A very attractive perennial plant native to southern Europe. Leaves are small and the surface is covered in a high density of fine silver hairs. Flowers in spring are white and attractive to pollinators.</p>	<p>Ultimate height 0.5-1 metres Ultimate spread 0.5-1 metres Time to ultimate height 5-10 years. Can be pruned to maintain a more compact shape.</p>	<p>Hardy. Full sun. Tolerates drought.</p>
<p>Erysimum bicolor <i>Perennial wallflower</i></p>  <p>A small, short-lived perennial native to Europe. Flowers in late spring with bright pink colouration and are attractive to pollinators. Leaf surface has a high density of short hairs.</p>	<p>0.5-1 metres Ultimate spread 0.5-1 metres Time to ultimate height 2-5 years. Can be pruned to maintain a more compact shape</p>	<p>Full sun. otherwise grows in most conditions. Hardy.</p>
<p>Geranium maculatum <i>Wild geranium</i></p>  <p>A shrub native to eastern North America. Leaves are broad and palmate with fine hairs particularly at the margin of the leaf. Flowers early summer and attracts insects.</p>	<p>0.3 - 0.6 metres</p>	<p>Part shade. Moist acidic soil.</p>

Species	Height and spread	Conditions
<p>Hebe odora</p>  <p>A small shrub native to New Zealand. Hebe spp. are characterised by having four rows of perpendicular leaves running up the stem. Leaves in H. odora are very small. Flowers early summer.</p>	<p>1m max. spread 1m max. height 5-10 years to maturity. Can be pruned to maintain a more compact shape</p>	<p>Tolerates most conditions. Tender in frost.</p>
<p>Hebe Mrs Winder</p>  <p>Another variety of Hebe native to New Zealand. Hebe Mrs Winder is larger than H. odora with larger leaves. Flowers early summer.</p>	<p>Ultimate height 0.5-1 metres Ultimate spread 1-1.5 metres Time to ultimate height 5-10 years Can be pruned to maintain a more compact shape</p>	<p>Hardy. Tolerates most conditions.</p>
<p>Hedera helix <i>English ivy</i> A climbing plant native to Britain and the rest of Europe. It is suggested that varieties that do not grow adventitious roots are planted that will not spread to surrounding concrete. Flowers late summer providing a nectar source for insects and berries which can be forage for birds.</p>		<p>Hardy. Tolerates most conditions</p>
<p>Heuchera villosa</p>  <p><i>Hairy alumroot</i> A small perennial native to the eastern United States. Leaves are purple, large and broad with serrate margins. Approx. 5-8 cm long and wide, with hairs at a low density on the leaf surface but higher on the underside of the midrib and stem.</p>	<p>Ultimate height 0.1-0.5 metres Ultimate spread 0.1-0.5 metres Time to ultimate height 2-5 years Can be pruned to maintain a more compact shape.</p>	<p>Hardy. Tolerates most conditions.</p>

Species	Height and spread	Conditions
<p>Lavendula angustifolia <i>Common lavender</i></p>  <p>An aromatic shrub native to the Mediterranean region. Leaves are small approx. 0.5 cm wide and 2-4 cm long with a somewhat rough surface. Flowers in mid-summer, very fragrant and attractive to many pollinators.</p>	<p>Up to 0.5 -1.0 metres (18-39in) high and wide Can be pruned to maintain a more compact shape</p>	<p>Hardy. Full sun.</p>
<p>Stachys byzantina</p>  <p><i>Lamb's ear</i> Leaves have long, dense, silver, silky-lanate hairs on the surface. Forms a dense ground cover with purple flowers in summer</p>	<p>Ultimate height 0.1-0.5 metres Ultimate spread 0.5-1 metres Time to ultimate height 2-5 years</p>	<p>Hardy. Full sun.</p>
<p>Heuchera 'Regina' <i>Hairy alumroot</i></p>  <p>Compact perennial forming a clump of shallowly lobed, deep purplish-green leaves, with vivid silvery marbling above, and reddish-purple beneath, and pink flowers from late spring to late summer</p>	<p>Ultimate height 0.1-0.5 metres Ultimate spread 0.1-0.5 metres Time to ultimate height 2-5 years</p>	<p>Drought and shade tolerant but also grows in full sun.</p>
<p>Alchemilla mollis <i>ladies mantle</i></p>  <p>Herbaceous perennial forming a clump of softly hairy, light green leaves with scalloped and toothed edges. Small, bright yellow flowers are borne in large sprays just above the foliage.</p>	<p>Ultimate height 0.1-0.5 metres Ultimate spread 0.1-0.5 metres Time to ultimate height 2-5 years</p>	<p>Dry shade tolerant, also grows in full sun, hardy.</p>