

## Science & Technology

# TOYOTA DEVELOPS ECO-FRIENDLY SHRUB

**Plant Has Increased Capacity to Absorb Pollutants (November 28, 2005)**



The kirsch pink (Toyota Roof Garden)

Toyota Motor Corp., Japan's largest car manufacturer, has developed a new type of cherry sage shrub that can absorb airborne pollutants much more effectively than existing varieties. The automaker plans to commence sales of the eco-friendly plant in March 2006 through Toyota Roof Garden Co., a subsidiary based in Aichi Prefecture, at a retail price of ¥380 (\$3.30 at ¥115 to the dollar) a pot.

### **Smog Eater**

Cherry sage (*Salvia microphylla*) is a semi-evergreen shrub with a relatively long flowering period lasting from early summer until the end of autumn. It has an outstanding ability to clean the air and reduce the "heat island" effect - a phenomenon in which the abundance of concrete and lack of greenery in cities results in higher temperatures, increased use of air conditioning, and further pollution. These qualities brought it to the attention of Toyota Motor and led the company to start working on a new variety.

The fruit of the automaker's efforts was a new variety of the plant, which Toyota named Kirsch Pink. According to Toyota Motor, Kirsch Pink is 1.3 times more efficient at absorbing pollutants nitrogen dioxide and sulfur dioxide and reducing the heat island effect than existing varieties. It is 1.2 times better at doing these things than even the fast-growing Kirsch Red, a cherry sage already being sold by Toyota Roof Garden. Toyota Motor asserts that planting Kirsch Pink on the sides of roads and in city parks would improve air quality.

The company plans to market two other plants at the same time as Kirsch

Pink. The first is a low-growing Roman chamomile, and the second is an ornamental lavender, both of which can withstand hot summer weather. Greenery that thrives in the heat of summer could play a key role in combating the heat island effect.

### **Improving Both the Landscape and the Air**

Automakers initially responded to growing concern about the environment by introducing hybrid cars and other low-pollution vehicles, but today consumers expect them not only to come out with new models and reduce waste but to play a more fundamental role in tackling environmental problems.

In its Earth Charter/Action Plan, Toyota Motor states: "If the automobile is to remain a beneficial tool in the twenty-first century, environmental responses are essential." In line with this view, it is actively striving to deal with environmental issues, including by establishing the Toyota Biotechnology and Afforestation Laboratory in 1999. Toyota Roof Garden also stresses the principles of promoting tree-planting and taking action to reduce the heat island effect, clean up the air, and save energy in office buildings.

Though it may seem odd for an automaker to invent new plant varieties, the endeavor is not without reason. Toyota Motor's newest invention is not just an attempt to diversify but a plank in its efforts to grapple with environmental issues. The firm has in fact already developed a gardenia named Wald (the German word for forest), which has powerful air cleaning capabilities and is suited to roof gardens; this plant went on sale in 2003. And the Kirsch Red cherry sage and a heat-tolerant lavender plant marketed by Toyota Roof Garden have won a following among gardeners.

Toyota Motor hopes that sales of Kirsch Pink will lead to improvements in both the landscape and the air in urban areas.

<http://web-japan.org/trends/science/sci051128.html>