

# Infinity

endless green innovation

**We grow strong  
the roots of our future.**

**Pasquini&Bini**  
where your roots are safe

A project by Pasquini&Bini in collaboration with Lucart and the Department of Agricultural,  
Food and Agricultural-environmental Sciences at the University of Pisa



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DIPARTIMENTO DI SCIENZE AGRARIE  
ALIMENTARI E AGRO-AMBIENTALI  
UNIVERSITÀ DI PISA



 LUCART

Pasquini&Bini

# INNOVATION, SUSTAINABILITY, EXCELLENCE: INFINITY

**Nature is the beating heart of our planet. It is our duty to cultivate a deep connection with the natural world and commit to conserving it in the best way possible.**

Providing a circular economy and a true level of sustainability are the key tools in protecting nature. Reducing, reusing, and recycling are essential to help limit the effect our activities have on the environment, while also preserving our natural habitats.

This led to the creation of Infinity, a revolutionary range of plant containers that are the result of a visionary collaboration between **Lucart** and **Pasquini & Bini**. Together with the contribution of the **Department of Agricultural, Food and Agricultural-environmental Sciences at the University of Pisa**, this range of plant containers, made from *GranPlast*, is a momentous change in the horticultural world, thanks to its positive ecological impact.

**Infinity is not just a plant pot; it is a symbol of our undertaking for a sustainable future.**

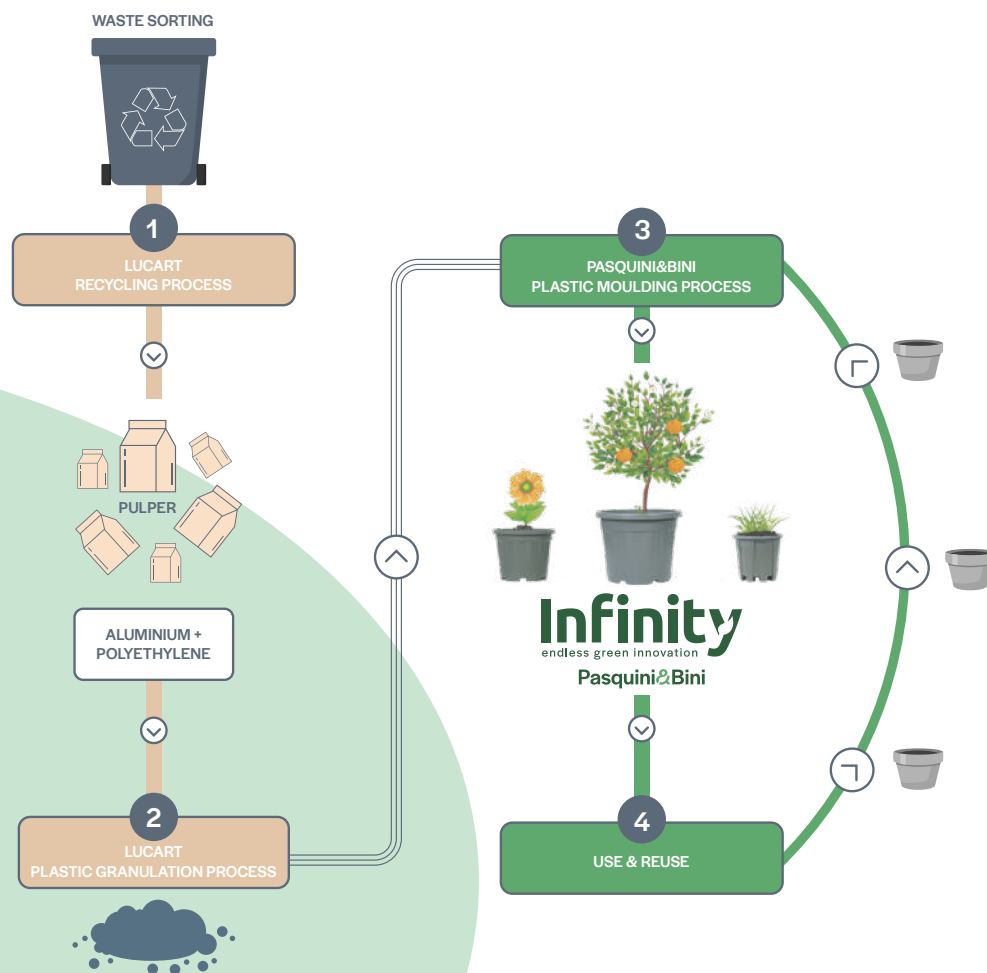




## Lucart's challenge

**GranPlast** is a material made from recycling **Tetra Pak**<sup>®</sup>-type packaging. Thanks to this innovative project, tonnes of **Tetra Pak**<sup>®</sup>-type drinks cartons discarded after use, are collected to transform them into a secondary-raw material.

By separating its components, **Lucart** can extract cellulose, which is used to make recycled paper. The remaining part, made from polyethylene and aluminium, is granulated to make **GranPlast**. **Lucart** originally developed **GranPlast** to make high-quality, recycled plastic pallets. The challenge was to find further uses for this extraordinary material, and this was how the **Infinity** project came to be.



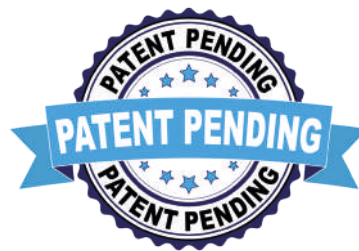
# Granplast and Sustainability

Tuscany is Italy's best region for separating their household waste, there, nearly all recyclable packaging is collected by waste disposal centers. GranPlast is an ecological resource that is derived from recycling household waste. A higher level of collection, separation means a higher productivity of **GranPlast**, providing a next level to circular economy.

This sustainable material not only reduces disposal, but also helps to preserve the Tuscan environment, as much of the recycled raw material remains in the region. This falls in line with our **circular economy** philosophy, where a short production chain is essential. At the end of its life, the item can be retrieved and recycled again and again, or as we say in Italy, ad infinitum! This is why we chose the name **INFINITY**.



Several experiments conducted in collaboration with the Department of Agricultural, Food and Agricultural-environmental Sciences at the University of Pisa have shown that plants (such as blueberries, raspberries, lettuce and beans) grown in Infinity plant pots show considerable increase in growth, with peaks of 30% on the dry weight of the air part and 25% on the dry weight of the roots. The results are even more for plants grown in substrate with a pH level of less than 4/4.5.



*Exclusive use of compound made from recycling plastic-coated papers such as **Tetra Pak**® for the production of plant pots.*



# As well as the sustainable aspect, Infinity provides several advantages for growing plants:

## 1 Phytostimulation

Infinity plant pots provide a positive environment for plants to grow in, promoting phytostimulation and improving root health. The particular compound used for Infinity plant pots, using acid substrates with a pH below 4.5, creates a controlled release effect for the substances contained inside them. This effect stimulates plant growth instead of damaging them. Experiments conducted have shown that plants grown inside the Infinity plant pots are not just healthy, but are also better developed than the ones grown in traditional pots.



## 2 Temperature Control

Thanks to the qualities of **GranPlast**, the plant pots regulate root temperature, creating optimal conditions for the plants to grow. Infinity plant pots **reduce the extent to which the substratum inside the pots overheats during the summer months**, recording temperatures that are on average 5-7 degrees lower than black pots, with peaks of 10° during the hottest hours of the day. This is of considerable benefit to the plant roots, and for their health in general, reducing stress to a minimum.

## 3 Carbon Black Free

The total lack of carbon black **simplifies disposal** on completion of cultivation, making Infinity plant pots a sustainable choice. The plant pots have passed all the **Institut Cyclos'** recyclability tests.

**Infinity is much more than a plant pot; it is a commitment to a sustainable future, an initiative that proves how recycling and sustainability can go hand in hand with innovation.**



Institut cyclos-HTP GmbH  
Institute for recyclability and  
product responsibility

Infinity



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**NUOVA PASQUINI&BINI S.P.A**  
Località Tei - zona industriale La Galeotta  
55011 Altopascio (LU), ITALY

Tel. +39 0583 264656 | Fax + 39 0583 269115  
[info@pasquini&bini.it](mailto:info@pasquini&bini.it)