

BG-Map

Botanical Garden in Mexico Uses “Pet Friendly” RFID Chips to Tag Plants

Other Feature Articles

Botanical gardens may think of their plants as their “pets”, tending and caring for them lovingly. But, Jardín Botánico Francisco Javier Clavijero, a 38 acre botanical garden near Xalapa, Veracruz, Mexico, has gone a step further – they are tagging their plants with AVID RFID pet identification chips.

About AVID RFID Chips

RFID tags are small electronic transponders that transmit radio frequency energy encoded with stored data. Each tag contains a unique code that can be read by special devices. They come in many shapes and sizes and are used in many applications – “smart cards” for security identification, tagging valuable items in retail establishments and even tagging pets so they can be easily identified if they are lost or stolen.

The AVID chip (American Veterinary Identification Devices) is one of the most commonly used pet identification tags. It consists of a small transparent capsule containing a tiny radio frequency circuit. Veterinarians implant them under the skin of dogs or cats, where the hidden tag serves as a permanent identification for each pet.



An AVID Chip (scale in centimeters)

All photos courtesy of Jardín Botánico Francisco Javier Clavijero

Jardín Botánico Francisco Javier Clavijero uses these AVID chips as plant tags for trees, shrubs and even container-grown plants.

Applying the Tags

Trees

Tags are applied to trees by simply drilling a small hole in the trunk and inserting the AVID chip.

Shrubs and Herbaceous Plants

First, the AVID chip is encased in a small plastic container to protect it. Then, using copper wire, the encased chip is attached to a ground stake

and inserted next to the plant.

Containerized Plants

The AVID chip is encased in a plastic container, which is inserted into the growing medium.



Drilling a Tree Trunk Prior to Inserting an AVID Chip



Inserting the AVID Chip into a Tree Trunk



Encapsulated AVID Chip



AVID Chip Attached to Ground Stake



AVID Chip Placement at a Shrub



Inserting an AVID Chip into a Container

Reading and Using the Tags

The AVID chip reader is a wand-like device, connected to a Windows Mobile handheld computer running BG-Map GreVid and Garden Notepad. When the chip is read, the plant's previous history is displayed and new data can be entered to record plant size, condition and maintenance.

This system, using encoded tags and electronic data collection, is highly efficient while greatly reducing the possibility of human error.



Wand used to read AVID Chips

Acknowledgement and Thanks

Many thanks to Victor Luna of Jardín Botánico Francisco Javier Clavijero for providing the images and information for this article. Victor's contact details can be found at: <http://www.bg-map.com/users.html#JBF>

More information on RFID tags can be found at: http://www.bg-map.com/userdata/RFID_BGMAP.pdf

More information on BG-Map GreVid and Garden Notepad can be found at: <http://www.bg-map.com/handheld.html>

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BG-Map Botanical Garden Mapping System

Mapping the world... one plant at a time

For up to date information, visit the BG-Map Users Support Website at www.bg-map.com/userdata

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