



Nature Helping Science Restore

the Natural Process of the Soil Food Web®

Success Stories *the Arboretum Tomé*

Perhaps one of the most amazing stories of Soil Restoration Success anywhere in the country is the home site for **Soil Secrets** and its nursery division **Trees That Please** called **The Arboretum Tomé**. When the site was purchased in the fall of 1986 by Michael and Kari Melendrez the soil was a toxic heavy clay 12 feet deep that turned white in winter from sodium chloride. Called White Death, the sodium crust would resemble snow! The soils pH ranged from a low of 8.3 to 9.2 and by any account was very alkaline. USDA affiliated Soil Scientists told Michael that his task was impossible and that he could not fix soils this bad without hauling in new soil to the site! They advised him to sell and move to a site with better land!

Today, after 23 years of using the exclusive technology of Soil Secrets, we can grow almost any plant we choose as long as it can tolerate our climate zone. This site and its collection of plants is a testimony to the success of rehabilitating a soil using the technology of Soil Secrets, as the Arboretum's collection of trees is now one of the largest in the Southwest including one of the largest collections Oak species native to the Chihuahuan Desert Region, in the country. Also on the site are Redwoods started from seed in 1989 that today are about 60 feet tall, and Oaks that were started from acorns planted in the ground in 1998 that today are close to 40 feet tall, plus a collection of Acer grandidentatum – the Bigtooth Sugar Maple from New Mexico, Idaho, Utah, Texas, Oklahoma and Mexico.

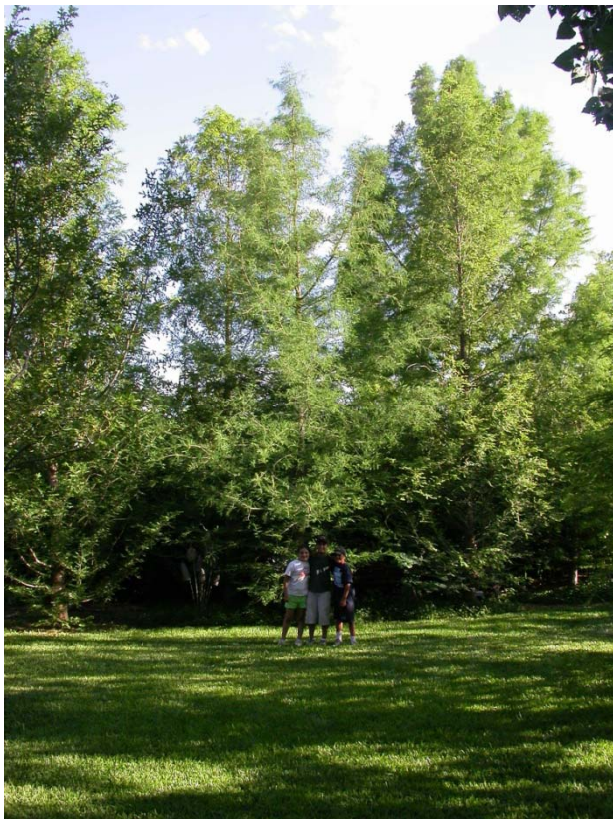
***The Arboretum Tomé* exemplifies **Restoring the Natural Process of the Soil Food Web®** through the use of the products and protocols of Soil Secrets!**



This is the same view taken 11 years apart!
The left photo taken in 1987 and the right photo taken in 1998!



The same view of *the Arboretum Tomé* as of summer 2005!
Below are more Redwoods on the arboretum grounds.



Trees of Antiquity, the Redwoods



Here's a type of Redwood we found growing in dry arroyos (dry desert stream beds) in West Texas on the eastern most edge of the Chihuahuan Desert. The image is in November so the tree is showing fall color and will soon shed all it's needles. This tree is about 60 feet tall and was planted from seed in January of 1989. Also on the grounds are another deciduous conifer that's also a member of the redwood tribe called a Metasequoia – Dawn Redwood. The evergreen wall in front of the Redwood is a type of Giant Timber Bamboo that has reached 35 feet tall and which has a maze of trails fun for the kid in us to explore.

Low Water Lawns



Soil Secrets is proud to brag about the lawn at ***the Arboretum Tomé*** as it is one of the best low water lawns to be found in the Southwest. When you consider what bad conditions the soil presented back in 1987, it's a true success story and testimony to how well biology and Soil Secrets Soil Restoration Products work! The best news about this lawn is that it's watered only once every two to three weeks if we are having a normal summer. The **Humic Acids of Humus** and the beneficial fungi called **Mycorrhizae** are the secret to this low water success story! Research that supports the claim of water conservation can be provided upon request.



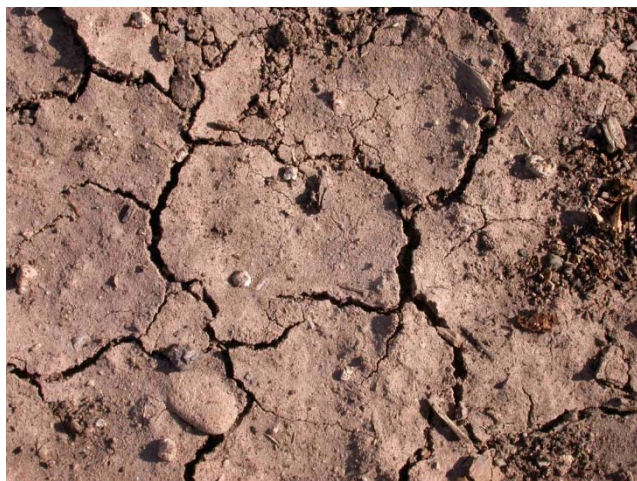
Fall Color on Oaks, Maples and Redwoods



In New Mexico fall color is confined to yellow and brown on our native Cottonwoods and Aspens, unless you get off the beaten path into the remote wilderness areas where oak and Bigtooth Sugar Maple can be found, and fall color is a riot of red and orange. On the Arboretum grounds these same native trees give outstanding fall color. The bottom photos shows a Dawn Redwood and Bigtooth Maple both in fall color side by side.



Arboretum Soils: Humic Acids change the physical, chemical and biological characteristics of soil!



Clay lacking Humus



Clay with Humus showing aggregation

These two images were taken at **the Arboretum Tomé** and show an area of clay that has not yet been exposed to our annual treatments of TerraPro (also known as Earth Magic®). The clay lacking Humus is collapsed and dispersed which results in a very hard soil with poor oxygen levels, poor root growth and poor drainage, none of which are good for optimum health of any plant including turf, trees or a farm crop.

It's important to understand that Humus is a common non scientific term used to describe the bio-molecules called **Humic Acids**. There are several organic acids that make up this group of substances that together are known as **Humic substances** or Humus. According to the **Journal of Chemical Education** in the December 2001 issue, titled '**Humic Acids: Marvelous Products of Soil Chemistry**' "Humic acids are remarkable brown to black products of soil chemistry that are essential for healthy and productive soils". There are many reasons why this is true that go beyond the scope of this paper, but can be found in Michael's paper on **Electronegativity of Humus: A Marvelous Benefit to Plants and Soil**.

TerraPro® (also known as **Earth Magic®**) is the Humus product used on this site. Manufactured by Soil Secrets, they are rich in the Humic Acids at 76% and are also rich in Organic Matter at 58.7%. The Organic Matter in these products is at a percentage higher than most high quality compost products on the market and a certified analysis is available upon request. TerraPro or Earth Magic are affordable and easy materials for fortifying the Humic Acids into the construction and maintenance of any landscape including Highway right-of-way plantings, land reclamation on mine sites, and sustainable/organic farms. Homeowners will find **Earth Magic** an excellent choice for lawn and gardens as it's safe for pets and children, while improving the health of their soils! **Healthy Soil Grows Healthy Landscapes**

Arboretum Nursery



On the Arboretum grounds is our experimental nursery where growth trials for our clients are on-going. The image above shows a trial for a Mexico farming project and the image below shows an above ground RootControl growing experiment with native oaks. Phytotoxicity tests on Soil Secrets products are also conducted with woody and non-woody plants grown in containers as part of our R & D. At any given time there are tens-of-thousands of trees, shrubs and non-woody plants in containers being produced in this nursery.





The products of Soil Secrets meet the benchmark of the USDA National Organic Program and can be used on Organic Certified properties.

For information on where you can purchase these products contact Soil Secrets LLC.

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