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The Myth of Landscape Fabric:

"Landscape fabric provides permanent weed control for ornamental landscapes"

The Myth

Increased concern over indiscriminate use of herbicides has caused landscape professionals and consumers to look closely at non-chemical alternatives to weed control. Mulches are increasing in popularity as weed control strategies and have a number of additional benefits, including water retention and soil protection. Mulches may be organic, inorganic, or synthetic and often can bring an aesthetic quality in tandem with their principal role in plant health maintenance. Synthetic mulches, including geotextiles, are of interest to many consumers and professionals because they are perceived as non-biodegradable, permanent solutions to weed control.

Initially developed for agricultural use, geotextiles have found their way into ornamental installations as landscape fabrics. These fabrics, a vast improvement over the impermeable black plastics still (unfortunately) used for weed control, are woven in such a way that water and gas exchange can occur but light penetration is significantly reduced. Hence, they are effective in reducing weed seed germination in areas where soil disturbance would otherwise induce germination of a horde of weeds. Such fabrics have been so effective in reducing weeds in vegetable and ornamental crop production that they have been applied to more permanent landscape installations.

The Reality

Like the perpetual dieter searching for a permanent weight loss pill, so we as landscape professionals and consumers continue to seek permanent weed control solutions. Unfortunately, there is no such permanent fix. We must remain "ever vigilant" in our battle with weeds and cannot rely on a product to do this passively. The fact is that weed control fabrics are not permanent and will decompose, especially when exposed to sunlight. Such fabrics are effective in agricultural situations, in annual planting beds, or where the landscape is regularly disturbed and the fabrics can be replaced when needed. For permanent landscapes, however, they are not a long term solution and in fact can hinder landscape plant health. Some of the documented drawbacks of these fabrics are listed below.

- Geotextiles degrade in the landscape in as little as one year if unprotected from sunlight.
- Any organic matter or soil on top of the fabrics will hasten their colonization by weeds; this precludes covering the fabric with anything but inorganic mulch like pebbles. It also requires continual maintenance to keep the fabric free of debris.
- Weeds will eventually grow on top of and through these fabrics, making their removal difficult.
- Landscape plant roots can also colonize fabrics, and they are damaged when the fabrics are removed.
- The aesthetic quality of landscape fabrics is minimal; it becomes worse as the materials begin to degrade.

I must add my own anecdotal story here. When we moved into our current house a few years ago, I began attacking the horsetail and bindweed that were emerging from our backyard ornamental bed. The odd thing was is that my shovel wouldn't go deeper than about 6 inches. What I discovered was the previous owners had laid landscape fabric down and then covered it with 6 inches of topsoil. The fabric was completely covered with the roots and rhizomes of both bindweed and horsetail. It was apparent that

the owners hoped to cover up the problem long enough to sell the house (I guess it worked!). Up came the fabric, out came the roots and rhizomes, and down went the wood chips. Now, a year later, the bed is nearly 100% free of both of these weeds thanks to the wood chips and being "ever vigilant".

The Bottom Line

- Geotextiles are not effective weed control solutions for permanent landscapes
- Landscape fabrics used in permanent landscape installations will eventually become a high maintenance issue in terms of appearance, weed control, and landscape plant health
- Organic mulches are preferred alternatives for permanent landscape installations as they can be reapplied throughout the life of the landscape without damaging the existing plantings

For more information, please visit Dr. Chalker-Scott's web page at http://www.theinformedgardener.com.