



Magic Mulch

Mulch! You say. What's to say about mulch. Nothin' magic about that. You just pile it around your plants and it makes the bed look better . . . and keeps the weeds down.

And you'd be right. It does make the beds look better. And right again; maybe part of the reason they do look better is exactly because mulch really does help keep the weeds down. But when you begin to look a little closer, good mulch does so much more. With-

out too much stretch, it could almost be accurately described as a multi-function miracle application.

But "good" is a key word in the sentence above because organic mulch can be a contaminant of sorts as it brings in a variety of pathogenic organisms that create problems. So it is a wise property manager who is careful about the source of his materials. Organic mulches that have been leached with water are more likely to be free of water soluble toxicants. Organic mulches that have gone through the heat of a composting process are more likely to be free of disease organisms.

ow, with that said, what's so good about mulch? Here's the general list: 1)Aesthetic appearance, 2)Weed control, 3)Water conservation, 4)Erosion control, 5)Soil fertility, 6)Improvement of soil structure, 7)Protection from cold and heat.

Regarding aesthetics, mulches can be, by definition, any material placed on soil to cover and protect (Harris, Clark, & Matheny). Therefore, mulches can be both

organic or synthetic. This opens up the range for color and eyepleasing contrast in any garden or planted area. Various grades and types of crushed stone and spunbonded synthetic.

thetic fabrics are examples of the latter.



Beyond the aforementioned weed control, soil under mulches also provides a superior environment for root growth as compared with soil below turf.

Then there's water conservation. A 1939 laboratory study found that straw mulch 1.5 inches thick over field capacity soil was very effective at conserving soil moisture through protection from solar radiation, evaporative wind effect, and temperature-related vapor escape. So a properly applied good mulch can reduce the volume and frequency of necessary watering.

Residue 1 rosion control works because a good mulch holds more water near where it falls so that more of it soaks into the soil. This means (obviously) less water loss at time of application (whether by rainfall or irrigation) and less soil particle loss that would flood away with that otherwise renegade water.

Por the soil fertility benefits of mulching, we might refer back to the increased root growth under good mulch mentioned above. Either through direct leaching or by the decomposition of organic mulches, nutrients and microorganisms are imparted to the soil, making it more fertile and better aerated.

Improved soil structure occurs under organic mulches as a result of the combination of wetting and drying cycles, temperature enhancements, low compaction, and the absence of cultivation. In turn, improved soil structure increases water infiltration rates and further decreases soil erosion and soil compaction.

And last, but certainly not least, temperature moderation can be crucial for plant rooting in shallow soils or during particularly cold or hot weather periods.

C everal years back I enjoyed watching the plants of one of my clients literally thrive because he had made a considered (and I think wise) departure from the usual expectation and cultural norm of suburban neighborhoods. Instead of attempting to grow a competitive turf under the varied colorful plantings in his front area, he had elected to use a brown pine straw mulch material throughout. Let alone the fact that he did not have to mow, the mulch color contrasted very pleasingly with the various shades of foliar green and the bright flowerings of his plantings. The plants loved it, expressing their appreciation with luxuriant vitality and performance.