A Clearer Picture of an Established and New Growing Media Component for Greenhouse Culture

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A recent article has prompted this response to more clearly define the value and properties of an established media component, bark ash, and to describe Coir, a new component with outstanding benefits to Sunbelt growers.

A Bit of History

Soilless growing media had a beginning in the United States with peat and vermiculite through the pioneering research of Ds. Sheldrake and Boodley at Cornell University. Their results signaled the beginning of a new and more efficient way of growing greenhouse plants. This culture has today virtually eliminated native soil as a component and the need to chemically or heat treat growing media for pathogen and pest control.

Bark Ash, The Real Story

Although bark ask has a higher pH than most growing media components, its addition to soilless mixes has become standard in regions where Scotts quality management of bark ash is available and where the component can be accessed in satisfactory quantity. When proper quality control and processing is accomplished prior to acceptance for mixing, bark ash imparts to growing media outstanding physical and chemical benefits. Of all its benefits, bark ash's ability to capture ammonium nitrogen for later release after nitrification has been instrumental in its performance over other components, a fact particularly evident when nitrogen drawdown in the pine bark-based mixes tends to be a problem.

Coir, The New Growing Media Component

For my money, at the very least in Sunbelt areas, Coir appears to be the most exciting growing media development to come along in a long time. Having the appearance and feel of peat, Coir is a fibrous product of coconut that contains all the benefits of peat without some of the problems common to peat.

Where Coir differs from peat is it has a pH about one unit higher and it contains substantial potassium that contributes to plant growth and quality. In addition:

1. It wets and re-wets readily.
2. In sufficient volume in a mix (30%), little or no shrinkage over time occurs with the finished mix.
3. It dries out readily on the medium surface, a benefit that virtually eliminates algae and discourages fungus gnat/shore fly development.
4. It maximizes water retention and reduces the number of irrigations used in growing.

5. It provides excellent oxygen levels and promotes ready rooting and root development.
6. Its ability to retain more solution means more efficiency in fertilizer utilization by plants.

Coir is available from several offshore sources. Effective and on-going quality control and assurance of any Coir research is essential to its successful utilization. Scotts has commercialized Scotts Coir PM® Mixes and other companies are seriously examining including Coir in their product line. Bottom line, Coir when substituted for peat in growing media has produced outstanding benefits compared to the peat-containing counterparts. Coir is definitely a winning component for southern greenhouse culture.

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