

Guardian angels for seeds

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The seeds that you plant in your backyard garden next spring -- and farmers sow in their fields -- may have a guardian angel that helps them sprout, stay healthy, and grow to yield bountiful harvests. It's a thin coating of chemicals termed a "seed treatment" that can encourage seeds to germinate earlier in the season, resist insects and diseases, and convey other advantages. These new seed defenders are the topic of an article in the current issue of Chemical & Engineering News (C&EN), ACS' weekly newsmagazine.

C&EN Senior Business Editor Melody Voith describes a boom in developing and producing chemical coatings that act as built-in pesticides to protect <u>seeds</u> from destructive <u>insects</u>, fungi, and other pests. Seed treatments for protecting cereal, corn, and beet crops already are common in agriculture and are growing in popularity in an effort to safeguard genetically modified seeds, which are expensive. The worldwide seed treatment market now generates \$1.5 billion yearly and is growing at 10 to 12 percent annually, according to the article.

Voith notes that scientists are also developing a new generation of seed treatments that use microorganisms to protect plants from pests and promote earlier, more vigorous growth. One company, for instance, produces a bacterial coating that kills disease-causing fungi while secreting a substance that promotes plant growth. Unlike chemical treatments, which last for weeks, these biologic seed defenders last for months.

More information: "Seed Defenders" This story is available at



pubs.acs.org/cen/business/88/8845bus1.html

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