

Features

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The Impact of Eco-Friendly Messages

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There are a couple issues that continue to be in the spotlight of both the green industry and the public media outlets: bees and water. In the last two years, we continue to hear about the still-developing story surrounding the effects of pesticides on bees and other pollinators. That issue continues to resurface, especially in light of the announcement from the Environmental Protection Agency (in January) that imidacloprid has the potential to harm bee hives.

Another major headline in the public spotlight continues to be the worst drought on record for California and some other western states, which continue to cause water restrictions and impact plant sales. As these issues continue to be in the public eye, greenhouse growers and retailers will increasingly consider changing their practices in order to become more “sustainable” and reduce negative publicity. If greenhouse growers do change some of their production practices and communicate (market) those changes, will consumers even notice? How much do consumers value alternative pest management practices or eco-friendly practices?

In order to better understand how consumers value these growing practices, we conducted a nationwide online survey in May 2015. In this study, we wanted to gain a holistic perspective to understand the value of alternative pest management practices and eco-production practices compared with plant species and price (Table 1).

A T T R I B U T E	L E V E L S
SPECIES	Moss Rose, Verbena, Salvia, Marigold
PRICE FOR A 4-IN. POT	\$1.99, \$2.49, \$2.99, \$3.49
INSECT MANAGEMENT	Grown using: bee-friendly insect management practices, best insect management practices to protect pollinators, protective neonicotinoid insecticides, traditional insect management practices
ECO-FRIENDLY PRACTICE	Grown: in a container made from recycled materials, in a sustainably produced potting soil/mix, using recycled/recaptured water, using traditional plant production methods

Table 1. The attributes (species, price, insect management strategy and eco-friendly production method) consumers considered when evaluating their likelihood to buy the plant product.

Adding Value to Labels

When consumers were shown a photo of a 4-in. annual labeled with a price, pest management practice and an eco-practice (Figure 1), they rated their likelihood-to-buy the product on a scale from one to five. By doing this, researchers can infer the relative importance of the different factors contributing to purchasing decisions.

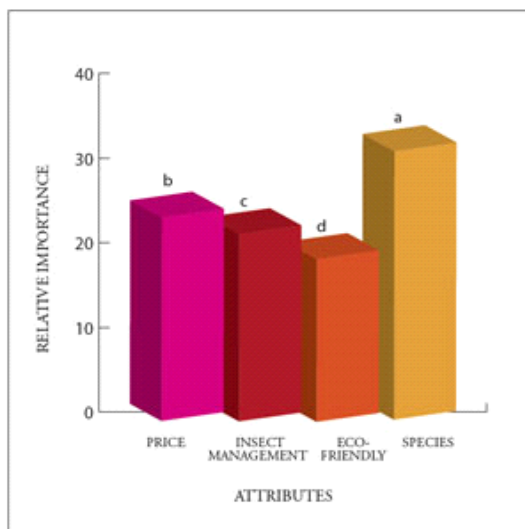
Plant species accounted for 32% of the consumer's purchasing decision followed by price (25%), insect management practice (23%) and eco-practice (21%) (Figure 2). The phrases "bee-friendly insect management practices" and "best insect management practices to protect pollinators" added value to products while the labels, "traditional insect management practices" and "protective neonicotinoid insecticides" detracted from the product's perceived value (Figure 3).



Consumers were also more interested in buying plants labeled that they were grown with "sustainable media" or "recycled or recaptured water" than if plants were "grown in recycled containers." "Traditionally-grown" also detracted from the plant's value.

Figure 1 (left). Consumers rated how likely they would be to buy a 4-in. annual labeled with pest management practice, eco-practice and price.

In addition to inferring the importance of different factors, we also directly asked the survey respondents about the connotations of the insect management practices. When asked to rate various insect management plant production practices on a scale of 1 (means something very negative) to 5 (means something very positive), consumers viewed the following most positively: "plants grown using bee-friendly insect management practices," "plants grown using insect management strategies that are safe for pollinators," "plants grown using best insect management practices to protect pollinators" and "plants grown using insect management practices that leaves no insecticide residue on the plant." All other production practices were neutral in meaning from the consumers' perspective.



To help put these results into a monetary perspective, labeling plants as bee-friendly or as protecting pollinators may get a price premium of up to \$1.00 compared with other insect-management practices. Labeling plants as bee-friendly or protecting pollinators is worth up to \$0.26 more than some eco-friendly practices, while labeling plants that are grown with recaptured water or in sustainable media is worth up to \$0.80 more than traditional plant production practices.

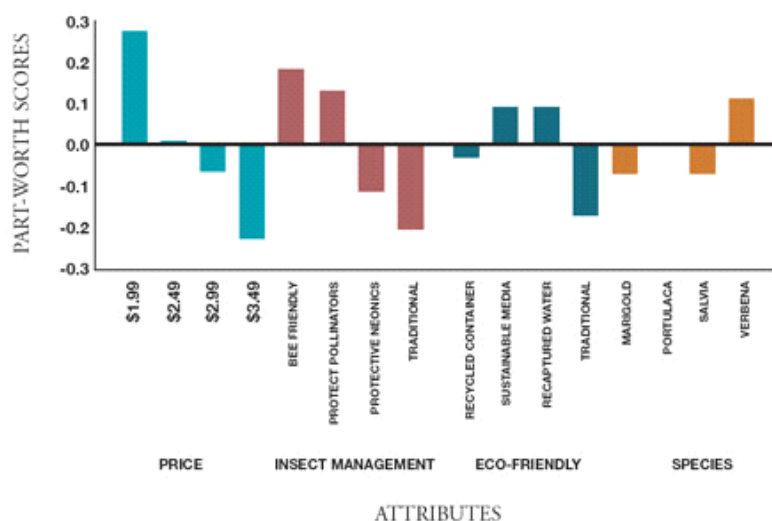
Figure 2 (left). Consumers valued species the most and the eco-friendly production practices the least. Means not sharing the same letter are statistically different.

Despite the price premiums that may be achieved by labeling plants as grown with “bee-friendly insect management,” over a third of consumers are still erroneously confusing bee-friendly insect management practices with plants that are a potential food source for bees. This is consistent with what our study in 2014 showed.

What Does it Mean?

Plant species continues to be the key driver of the purchase decision, while price and other attributes are of lesser relative importance. We were relatively surprised that consumers, even those from drought-ridden areas, did not value eco-practices during plant production more highly than they did. Consistently with 2014, there still seems to be substantial confusion about the meaning of the label “bee-friendly insect management.” Future marketing efforts made by companies who advertise using the phrase may also need to help to educate the public at large about the meaning of “bee-friendly.”

Figure 3 (right). Relative importance of price, insect management and eco-friendly practices, and plant species. The increasing part-worth scores indicates that increasing willingness to buy.



Our research shows that there's evidence that growers and retailers who promote their more sustainable production methods may be able to elevate the perceived value of their product and therefore may be able to sell their plants at a higher price point. Retailers therefore should consider if there is price plasticity in their local market in order to benefit from the increasing consumer awareness about pollinator concerns. **GP**

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About the Study

This study built on findings from data collected in 2014 previously reported in Green Profit (“Talking about the bees” and “If you don’t spray, will they pay?”). In the current study, we gauged opinions about eight different eco-friendly production practices or pest management practices by asking single and multiple answer questions.

We had a total of 1,555 participants from every U.S. state respond to our survey. The average age of consumers at the time of the survey was 49.4 years old and gender distribution was roughly half female and half male. Nearly two-thirds (64.6%) of participants had some college, an associate’s degree or a bachelor’s degree. More than half (54.1%) resided in suburban areas and about half (53.7%) had a household income of \$20,000 to \$79,999 in 2014. Since there were no restrictions on plant purchases, this large sample with a broad demographic profile allows us to extrapolate our findings to the American public at large.