I sent the following letter to the editor of Georgia Gardening magazine after reading the misleading article on the use of insecticides. The magazine appears to be published under different nameplates in other states.

Dear Editor:

I am compelled to write to correct errors of fact that appeared in an article in the July-August 2011 edition of Georgia Gardening. The article, “Using Systemic Insecticides for Garden Vegetables,” by Dr. Ayanava Majumdar and others, erred in declaring the systemic insecticide imidacloprid safe for honey bees.

This information is not only wrong and misleading to the gardeners you hope to inform, but it is also highly detrimental to the health of a key component of healthy home gardens—pollinating insects, especially honey bees.

The article features Bayer Advanced Fruit, Citrus & Vegetable Insect Control Concentrate (Bayer FCV) in which the active ingredient is imidacloprid. This active ingredient is the most popular in a relatively new class of insecticides called neonicotinoids. This group of insecticides acts on the central nervous system of insects as opposed to killing them on contact. Neonicotinoids have become the most widely used insecticides in the world in large part because of their apparent low toxicity to mammals.

Imidacloprid and other neonicotinoids have been linked to Colony Collapse Disorder (CCD), the syndrome that has been blamed for the deaths of hundreds of thousands of honey bee colonies over the past several years. For this reason, several countries have banned or severely restricted their use.

In a document relating to the registration of imidacloprid, the U.S. Environmental Protection Agency (EPA) reported: “Acute toxicity studies with honeybees show that imidacloprid is very highly toxic to nontarget insects…. This is a concern for pollinators because imidacloprid is a systemic pesticide which has been shown to translocate into the nectar and pollen of crop plants grown from treated seeds. [In soil treatment tests with ornamentals] detectable residues were found in flowers and leaves as long as 540 days after application to the soil.”

As a result, EPA requires that products such as Bayer FCV carry what is called a “bee warning.” In fact, the Bayer FCV label itself states: “This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.”

Despite this, Dr. Majumdar and his colleagues wrote, “Imidacloprid is safe for nontarget insects such as bees…” This is all the more troubling since Dr. Majumdar is identified as State Sustainable Agricultural Research Coordinator at Auburn University. Very little fruit and vegetable growing can be sustained without the benefit of pollinators, especially honey bees.

Dr. Majumdar is also a contributor to the 2011 Alabama Pest Management Handbook, which describes imidacloprid as “toxic to bees.”

The thrust of your article is to compare the use of Bayer FCV to the use of the contact insecticides carbaryl (Sevin) and malathion. Both of these are deadly to honey bees; however, they offer one advantage to beekeepers that imidacloprid does not—the ability to avoid contact. The traditional ways of avoiding insecticide kills include spraying at a time of day when bees are less active (evening and night hours), not spraying while plants are in bloom, and avoiding spray drift. However, systemic insecticides are just that—systemic—always present. There is no avoiding them other than to avoid the area long term. Seed treatments have shown imidacloprid can migrate into the soil to be taken up by subsequent crops, even blooming weeds that might be visited by bees later.

I urge you to publish a prominent correction to correct the errors included in this article in all the magazines titles where it was published and to post the same correction in a prominent location of your Web site, statebystategardening.com. In addition, I encourage you to publish subsequent articles highlighting the benefits of honey bees and other pollinators to home gardens and describing how gardeners can help promote healthy honey bee colonies.