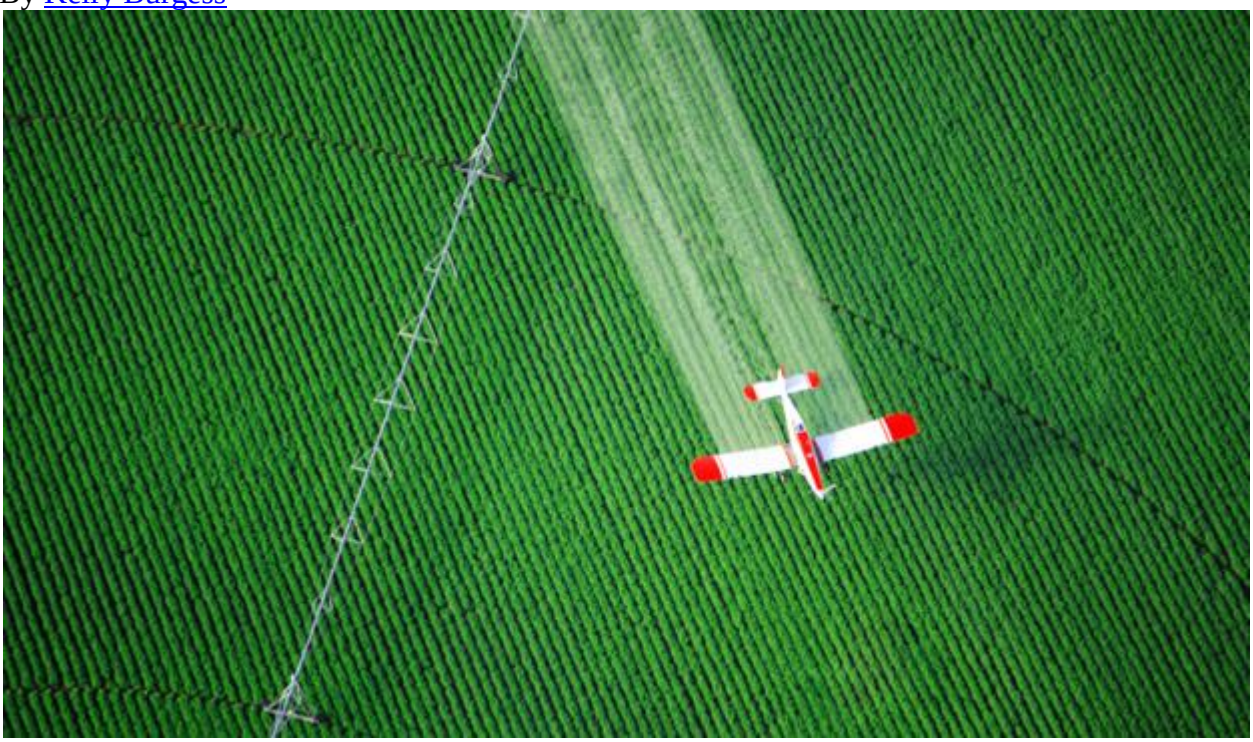
Prevention

Another Reason To Buy Organic

After analyzing the research, scientists find a link between pesticides and Parkinson's disease

By Kelly Burgess



Americans tend to romanticize the idea of farming, thinking of it as a simpler, healthier way of life, but there are hidden dangers that may lead to long-term neurological issues.

Exposure to some pesticides is likely associated with a higher risk of developing Parkinson's disease, according to an analysis of more than 100 studies from around the world that appears in the May 28, 2013 issue of *Neurology*. In general, these pesticides are licensed for commercial agricultural use only, leading to the further conclusion of a link between farming, or country living, and developing Parkinson's disease—a chronic, degenerative neurological disorder that affects movement and cognitive inhibition.

The link between Parkinson's disease and pesticide exposure has been studied a number of times, with some studies showing a strong correlation, while others are less clear.

"In clinical practice we see a lot of patients that have been exposed before the onset of the disease, but this is not enough to support a hypothesis," says study author Emanuele Cereda, MD, PhD, of the IRCCS University Hospital San Matteo Foundation. "When only studies of high quality are looked at together the evidence is strong that exposure is a risk factor."

Furthermore, says Dr. Cereda, researchers had the opportunity to investigate not only the role of exposure to a broad range of compounds, but also to specific molecules. Overall, the increase in risk of developing the debilitating disease ranges from 33 to 80 percent. Researchers also summarized the evidence on the potential role of lifestyle, such as well water drinking, rural living and farming, on exposure. However, they did not examine whether the pesticides were inhaled or absorbed through the skin, or the method of applying pesticide, such as spraying or mixing.

Janis Miyasaki, MEd, MD, associate clinical director of The Movement Disorders Centre at the University of Toronto, says it's logical to assume that these pesticides may not disperse as quickly as we once thought, and may be finding their way into the food supply or well water in the areas in which they are used.

Extrapolating that to the general public, she says, is that "we are what we eat," and if direct exposure is raising the risk of Parkinson's in those who supply our food, more indirect exposure may affect everyone.

"People need to be more aware of what their exposures are and question the safety of the chemicals they use every day," says Dr. Miyasaki. "We like to think if it's on a shelf it's safe, but we can't give up that control and assume everything is going to be harmless."