

Editorial: Dramatic Increases in Pesticide Use – for What?

By Jean English, Editor, The Maine Organic Farmer & Gardener

A United Nations report released last winter says the idea that pesticides are essential to feed our growing population is a myth, and it criticizes pesticide manufacturers that aggressively and unethically promote their products and obstruct restrictions on their use. The report calls for a global transition toward safer and healthier food and agricultural production.

We couldn't agree more, and we thank all the farmers (including more than 500 MOFGA-certified organic farmers) and gardeners in our community who do their best to produce food in a safe and healthful way with no or least-toxic pesticides (as well as all the homeowners and landscapers who also protect health and the environment this way).

According to the U.N. report, pesticides are responsible for an estimated 200,000 acute poisoning deaths each year, 99 percent of them in developing countries, where health, safety and environmental regulations are weaker and less strictly applied. While records on global pesticide use are incomplete, application rates are generally agreed to have increased dramatically over the past few decades – at the expense of human health and the environment, says the report, and while not eliminating hunger.

The report says that healthier, nutrient-rich food, with higher yields in the longer term, can be produced with no or minimal pesticide use and without polluting and exhausting environmental resources. "The solution requires a holistic approach by the international community to the right to adequate food that includes phasing out dangerous pesticides and enforcing an effective

regulatory framework grounded on a human rights approach, coupled with a transition toward sustainable agricultural practices that take into account the challenges of resource scarcity and climate change."

The United Nations recommends encouraging farmers to adopt agroecological practices to enhance biodiversity and naturally suppress pests, and to adopt measures such as crop rotation, soil fertility management and crop selection appropriate for local conditions – rather than relying on pesticide companies to advise on pest control. It also recommends providing incentives for organically produced food through subsidies and financial and technical assistance – and eliminating pesticide subsidies while initiating pesticide taxes, import tariffs and pesticide-use fees.

The report says, "While scientific research confirms the adverse effects of pesticides, proving a definitive link between exposure and human diseases or conditions or harm to the ecosystem presents a considerable challenge. This challenge has been exacerbated by a systematic denial, fuelled by the pesticide and agro-industry, of the magnitude of the damage inflicted by these chemicals, and aggressive, unethical marketing tactics."

Consistent with the UN report, a study published in Nature Plants analyzed pesticide use, productivity and profitability of 946 non-organic farms in France. By comparing similar farms that used high or low levels of pesticides, the researchers "demonstrated that low pesticide use rarely decreases productivity and profitability in arable farms." In fact, 94 percent of farms in the study would lose no production if they cut pesticide use; 40 percent would increase production; and 78 percent would be equally or more profitable when using less pesticide, according to The Guardian.

"We estimated that total pesticide use could be reduced by 42% without any negative effects on both productivity and profitability in 59% of farms from our

national network," say the researchers, adding, "This corresponded to an average reduction of 37, 47 and 60% of herbicide, fungicide and insecticide use, respectively."

Regarding methods for reducing pesticide use, let's add building soil health. We were interested in a recent report in *The Western Producer* saying, "Last year when fusarium head blight plagued thousands of conventional farmers in Saskatchewan ... organic farmers were seemingly protected from the fungal disease." Could repeated use of pesticides that harm beneficial soil organisms on conventional farms be to blame? That's worth investigating, and any research in this area should include not just control plots that do not use a particular pesticide, but also plots that have been managed organically for several years.

The U.N. report and the *Nature Plants* article are interesting for providing some data on pesticide use – something sorely missing in Maine and something MOFGA has been pushing the Maine Board of Pesticides Control to gather. We continue to wait.

Meanwhile, consumers, by supporting organic growers and voting with their dollars when possible, as well as gardeners and landscapers who use least-toxic methods, play a critical role in moving agriculture toward production systems that are better for themselves, their neighbors, farmworkers and ecosystems. To keep all of us current on the importance of this support, Sharon Tisher has updated her [Pesticides Quiz](#) for MOFGA.

Sources

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[world](#)," by Damian Carrington, The Guardian, March 7, 2017

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["Reducing pesticide use while preserving crop productivity and profitability on arable farms"](#), by Martin Lechenet et al., Nature Plants, March 1, 2017

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