



Lesson #17: Guard Yourself Very Well By Evonne Marzouk and Rabbi Yonatan Neril¹

The Torah teaches us to choose life.² The decisions we make must enhance our ability (and the ability of others) to live in this world as healthy physical and spiritual beings. The Sages throughout the generations internalized this concept very deeply both in the way they lived their own lives and in the way they guided others to live. In this article, we will explore the Jewish value of protecting our health, and how these lessons can guide us in our complex world, particularly in relation to one health challenge: our modern use of pesticides.

The Jewish tradition places a strong value on being healthy. The Torah states, “Guard yourself and guard your soul very much”³ and “You shall guard yourselves very well.”⁴ What does the Torah mean when we are commanded to “guard ourselves” and to “guard our souls”? The Sages explain that these verses refer to the mitzvah (commandment) of protecting one’s physical health.

G-d cares a great deal about how we treat our bodies. The body was given to us as a vessel whose primary function is to house the soul so that the soul can dwell in this world and fulfill its purpose. Maimonides (Spain, 1135-1204) explains this obligation as that one needs to distance oneself from things that might damage one’s body, and accustom oneself to a healthy lifestyle, because it is not possible to understand the ways of G-d when one is sick.⁵ Elsewhere, he explains that there is a positive commandment to remove any potentially lethal hazard, and to be extremely careful to protect one’s health. (Mishna Torah, Hilchot Rotzeach 11:4)

According to the Sefer HaChinuch (Spain, 13th century), it is our responsibility to guard against natural occurrences which may harm our bodies – not only things that can end a person’s life but also things that can damage a person’s body.⁶

This commandment is codified in the Shulchan Aruch,⁷ the primary compilation of Jewish law (Rabbi Yosef Caro, Israel, 1488-1575). It states that we should avoid “any matter that threatens human life... to remove it and to guard against it and to be very careful about the matter.” The Shulchan Aruch cites another Torah verse, “do not place blood” (Deuteronomy 22:8), to enjoin us to remove any danger we might cause to ourselves or others. For example, the Shulchan Aruch includes “not placing one’s mouth on a flowing pipe and drinking, not drinking at night from wells and ponds, lest one swallow a leech and not see it...” as examples of being careful to protect one’s health.⁸ These lessons demonstrate the exceedingly high importance that Jewish tradition places on preserving our lives and protecting our health.

¹ Brief sections of this article are taken with permission for “The Torah of Organics” by Rabbi Akiva Gersh, online at www.canfeinesharim.org. Some footnotes are taken with permission from an expansive article by Rabbi Zecharya Goldman on Jewish legal perspectives on conventional (non-organic) produce entitled “Is one obligated by Halakha to eat organic food?” The article is available from the author in the e-book “Judaism and the New Age: Halakhic Perspectives.” Rabbi Goldman is the founder and CEO of EarthKosher, a kosher certifying agency.

² Deuteronomy 30:19

³ Deuteronomy 4:9.

⁴ Ibid. 4:15.

⁵ Maimonides, Mishna Torah, Hilchot Deot 4:1

⁶ Sefer HaChinuch, Mitzva 546, of putting a fence on one’s roof

⁷ Shulchan Aruch, Rabbi Yosef Caro, Israel, 1488-1575, Choshen Mishpat 427, 8-10.

⁸ Shulchan Aruch, Choshen Mishpat, 427: 8-10

There are many applications of the commandment to “guard yourself and guard your soul.” One relevant item for all of us and our families is the reduction of exposure to chemicals such as pesticides.

Pesticides: Agricultural Necessity or Health Threat?

Jewish law employs a term-- *Ba'al Nefesh Yachmir*, or “A master of the spirit will be stringent”-- when a sage senses a cause for concern but does not find it appropriate to forbid something to the public. As one modern scholar notes, this category in Jewish law may be a fitting response in modern society to a specific potential danger: the danger posed by pesticides.⁹

After Adam eats from the forbidden fruit, G-d says to him, “Cursed be the ground for your sake; with toil shall you eat of it all the days of your life.”¹⁰ On this Rashi comments: “It will bring up cursed things for you, such as flies, fleas, and ants.” The following verse states, “And it will cause thorns and thistles to grow for you.”

The Torah makes clear that the agricultural efforts of humans will be complicated by pests and weeds, which compete against the crops humans are trying to cultivate. For thousands of years, humans have been trying to battle this reality. In the past fifty years, synthetic pesticides have been used to kill or deter crop-destroying pests. These pesticides have provided tangible benefits to human society, as well as a number of significant impacts on human health.

By definition, pesticides are toxic. They are designed to kill, repel or inhibit the growth of living organisms.¹¹ Used against insects, mammals, plants, fungi, nematodes and other creatures, they are intended to reduce problems caused by these creatures in agriculture, public health, or homes, schools, buildings and communities.¹² Pesticides are also harmful to human health, causing an estimated one million to five million cases of pesticide poisonings every year, with 20,000 deaths among agricultural workers.¹³

Since the 1960s, the use of pesticides has grown exponentially, in part due to the industrial production of pesticides and their spread throughout the world, and in part due to the expansion of agriculture to newly-cultivated areas in this period. In 2006 and 2007, the world used approximately 5.2 billion pounds of pesticides.¹⁴ The United States used 22% of the world total, at approximately 1.1 billion pounds of pesticides.¹⁵

Humans today benefit in significant ways from the use of pesticides. In many circumstances, pesticides are the only effective means of controlling disease organisms, weeds, or insect pests. Consumers benefit from pesticides through wider selections and lower prices for food and clothing. Pesticides also play an important role in protecting homes and businesses from termite infestations, and prevent the outbreak of disease by

⁹ “Judaism,” Op. cit. 3.

¹⁰ Genesis, 3:17

¹¹ In nature, of course, there are no pests. Human beings consider certain plants or animals that endanger our food supply, health, comfort, or aesthetic sense as pests, and to manage these pests we have created “pesticides.” This excellent point is made by Keith S. Delaplaine, Assistant Professor of Entomology, Cooperative Extension Service, The University of Georgia, Athens, Georgia in “Pesticide Usage in the United States: History, Benefits, Risks, and Trends” printed March 1996, available online at <http://ipm.ncsu.edu/safety/factsheets/pestuse.pdf>.

¹² *Childhood Pesticide Poisoning*. Published in May 2004 by the Chemicals Programme of the United Nations Environment Programme (UNEP Chemicals) with the assistance of UNEP’s Information Unit for Conventions. Available online at <http://www.unep.org/hazardoussubstances/Portals/9/Pesticides/pestpoisoning.pdf>.

¹³ Ibid.

¹⁴ “Pesticides Industry Sales and Usage: 2006 and 2007 Market Estimates” A. Grube et al, Biological and Economic Analysis Division, Office of Pesticide Programs, Office of Chemical Safety and Pollution Prevention, U.S. Environmental Protection Agency, February 2011, online at http://www.epa.gov/opp00001/pestsales/07pestsales/market_estimates2007.pdf

¹⁵ Ibid.

controlling rodents and insects.¹⁶ The general public also benefits in important ways from the use of pesticides for the control of insect-borne diseases and illnesses, such as malaria.¹⁷

Unfortunately, the widespread use of pesticides, sometimes in indiscriminate ways, also leads to a number of negative effects. For example, pesticide poisoning can result from a single or short-term exposure, causing death. There are also risks of chronic impacts to human beings from long-term exposure to pesticides, including pesticide residues in food. When pesticide residues enter streams or groundwater, natural resources can be degraded, and pesticides that drift from where they are applied can harm or kill other plants, birds, fish, or other wildlife.¹⁸

Humans are exposed to pesticides in multiple ways, including through residues in drinking water and foods, and by touching areas sprayed with pesticides. Pesticides are applied to crops as well as lawns and vegetation in residential and commercial areas. With regard to groundwater taken from public wells in the United States, approximately 90 million Americans rely on groundwater for drinking water,¹⁹ and some of that water is drawn from public wells and contains pesticide residue.²⁰ A study from the US Geological Survey found that “one or more pesticide compounds were detected at concentrations greater than benchmarks in about 3 percent of source-water samples from public wells.”²¹

Scientific studies have shown that pesticides contribute to a variety of health effects in people. A study of 200 pesticides found that several exhibited endocrine-disrupting potential,²² meaning they negatively affect the endocrine system. The American Medical Association recommends limiting exposure to pesticides and using safer alternatives, concluding that:

*Current surveillance systems are inadequate to characterize potential exposure problems related either to pesticide usage or pesticide-related illnesses. Considering these data gaps, it is prudent for homeowners, farmers, and workers to limit pesticide exposures to themselves and others, and to consider the use of the least toxic chemical pesticides or nonchemical alternatives.*²³

More recently, a report in *AmedNews*, a publication of the American Medical Association, cited a report in *Pediatrics* indicating that pesticides may increase the risk of attention-deficit-hyperactivity disorder in children.²⁴

The US Environmental Protection Agency writes that “Long-term exposure to pesticides may cause serious health effects such as birth defects, learning disabilities, organ damage, and forms of cancer, including

¹⁶ “Benefits of Pesticide Use,” Environmental Protection Agency, available at <http://www.epa.gov/agriculture/ag101/pestbenefits.html>.

¹⁷ “The Use of DDT in malaria vector control,” WHO position statement, World Health Organization, 2011. Available online at http://apps.who.int/iris/bitstream/10665/69945/1/WHO_HTM_GMP_2011_eng.pdf

¹⁸ “Risks of Pesticide Use,” Environmental Protection Agency, available at <http://www.epa.gov/agriculture/ag101/pestrisk.html>.

¹⁹ [U.S. Environmental Protection Agency, Office of Water. “FACTI0DS: Drinking Water and Ground Water Statistics for 2009.”](http://www.epa.gov/owow/officeofwater/factsheets/FACTI0DS_Drinking_Water_and_Ground_Water_Statistics_for_2009.pdf) The publication notes that “Seventy-eight percent of public water systems in the United States use ground water as their primary source, supplying drinking water to 30% of community water system users, or almost 90 million Americans.”

²⁰ [U.S. Environmental Protection Agency. “Drinking Water from Household Wells,” 2002](http://www.usgs.gov/nawqa/studies/public_wells/)

²¹ Toccalino, P.L., Norman, J.E., and Hitt, K.J., 2010, “Quality of source water from public-supply wells in the United States, 1993–2007”: U.S. Geological Survey Scientific Investigations Report 2010-5024, p. 209, online at http://water.usgs.gov/nawqa/studies/public_wells/.

²² Hiroyuki Kojima, Shinji Takeuchi and Tadanori Nagai; “Endocrine-disrupting Potential of Pesticides via Nuclear Receptors and Aryl Hydrocarbon Receptor”, *J. Health Sci.*, Vol. 56, pp.374-386 (2010).

²³ Educational and Informational Strategies for Reducing Pesticide Risks, 1994 Interim Meeting of the American Medical Association, Reports of the Council on Scientific Affairs, p. 7, available online at <http://www.ama-assn.org/resources/doc/csaph/csai-94.pdf>

²⁴ “Pesticides may increase risk of ADHD in children,” *AmedNews*, posted May 31, 2010, available online at <http://www.ama-assn.org/amednews/2010/05/31/prsb0531.htm>

leukemia, breast cancer, and brain tumors.”²⁵ In addition, pesticides are one form of endocrine disruptors that are believed to be partially responsible for the decrease in the age of onset of puberty in children around the world.²⁶

Children are exposed to pesticides in a range of ways, including by ingesting food and touching areas at home or school sprayed with pesticides.²⁷ Children face more significant exposure risks from pesticides than adults, because they behave and play differently than adults. For example, children play closer to the ground, and may be exposed to pesticides in dust and soil due to normal “hand-to-mouth” activity in small children. In addition, because children have different metabolisms than adults, their bodies have different capacities for breaking down or metabolizing, excreting, activating or deactivating pesticides. These processes change dramatically throughout a child’s journey to adulthood. As a result, pesticides may have more toxic effects in children, or lead to different symptoms from pesticide effects.²⁸

Protecting Ourselves and Our Children

Pesticides play an important role in our ability to manage disease vectors and grow food. However, they also present real risks to our health. Given Jewish tradition’s emphasis on “guarding our health very well,” how can we protect ourselves and our families from pesticides?²⁹

One thing we can do is reduce sources of pesticide exposures to our children (in food, water, dust, and soil and in the home and the work environment). For example, the Environmental Working Group (EWG) provides a Shoppers’ Guide to Pesticides in Produce which can help you identify healthy food for your family.^{30,31}

If you are considering supporting a local farm, for example, through Community Supported Agriculture, choose a farm that uses Organic or Integrated Pest Management (IPM) methods to reduce pesticide use. IPM practices utilize a range of pest management strategies, including alternatives like natural predators and parasites, and selective use of pesticides when necessary.

If you use pesticides in your home, keep them out of children’s reach and store them in containers that do not resemble those used for food or drinks, and ensure they are properly labeled with childproof lids. Do not store any highly toxic pesticides in your home. When you use pesticides (for example to control pests in your own home), strictly follow the instructions.

Children spend a significant amount of their time in school. We can create a safe learning environment by encouraging school administrators to adopt better pest management policies in schools, to reduce children’s

²⁵ “Pesticides and Their Impact on Children: Key Facts and Talking Points,” US EPA publication, online at <http://www.epa.gov/oppfead1/Publications/pest-impact-hsstaff.pdf>

²⁶ “Effects of Environmental Endocrine Disruptors on Pubertal Development,” Samim Özen, J Clin Res Pediatr Endocrinol. 2011 March; 3(1): 1–6. Published online 2011 February 23. doi: [10.4274/jcrpe.v3i1.01](https://doi.org/10.4274/jcrpe.v3i1.01)
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3065309/>

²⁷ *Pesticides in the Diets of Infants and Children*, the United States National Research Council, 1993, as cited in the EPA Publication “Protecting Children’s Health: The National Pesticide Program.” The National Research Council publication cited the following reasons for why children are different than adults in regards to pesticide exposure: 1) Children’s metabolic rates are more rapid 2) Children process toxicants differently 3) Children pass through critical developmental stages 4) Children consume more food in proportion to body size (as well as different types of food) 5) Children’s exposure patterns differ from adults’

²⁸ *Childhood Pesticide Poisoning*. Published in May 2004 by the Chemicals Programme of the United Nations Environment Programme (UNEP Chemicals) with the assistance of UNEP’s Information Unit for Conventions. Available online at <http://www.unep.org/hazardoussubstances/Portals/9/Pesticides/pestpoisoning.pdf>, p. 12.

²⁹ Many of the suggestions below are drawn from *Childhood Pesticide Poisoning*, p. 18-19.

³⁰ The website is available at <http://www.ewg.org/foodnews/>.

³¹ Please see the following Note from Canfei Nesharim’s Science and Technology Advisory Board for more context when thinking about preventing chemical and pesticide exposure to your children, <http://www.canfeinesharim.org/tubshevat/note-from-board/>.

exposure to pesticides as well as eliminate pests. The Environmental Protection Agency encourages school officials to adopt IPM practices and provides a step-by-step guide for doing so.³²

In a recent landmark ruling, Israel's Chief Sephardic Rabbi Shlomo Amar wrote about the health-related concern from pesticides, stating that eating "bug-free" leafy vegetables poses a health risk due to their increased use. The halachic (Jewish legal) ruling was issued following lab tests conducted on such crops, and recommends that the public purchase regular leafy vegetables and clean them "in the old-fashioned way."³³ This ruling casts a new light on the mitzvah to protect our health.

Examining pesticides and their effects through the lens of the commandment to "guard yourself and your soul" is just one example of how Jewish teachings can apply to health. By becoming more conscious of our Jewish obligation to protect our health, we can also learn to live in a way that protects the land and sustains our resources for the long term. Let us become more healthy in body and soul, and in so doing, create a healthier world.

Evonne Marzouk is the founder and executive director of Canfei Nesharim: Sustainable Living Inspired by Torah. She is also the leader of the Jewcology project.

Rabbi Yonatan Neril founded and directs Jewish Eco Seminars, which engages and educates the Jewish community with Jewish environmental wisdom. Since 2006, he has worked with Canfei Nesharim in developing educational resources relating to Judaism and the environment.

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³² This guide, along with many other helpful resources, is available at <http://www.epa.gov/pesticides/ipm/brochure/>.

³³ "Rabbi Amar: 'Bug-free' vegetables dangerous", *Ynet News*, published 11/6/12. Article online at <http://www.ynetnews.com/articles/0.7340.L-4300824.00.html>