Pesticides: The Hidden Menace

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Pesticides are everywhere. These chemicals are synthetic, i.e. not found in nature, and along with herbicides (vs. weeds) and fungicides (vs. fungi) are used in the agriculture industry and even gardeners in widespread manner all over the world. However, these chemicals make their way into our food by direct contact (farmers, not washing products); by seeping into our water system and by going into animals' foods (cow eats grass so milk & meat get contaminated; same with chicken and eggs, etc.).

Exposure to pesticides in the general population today is almost always present. They are used on crops such as wheat and seeds, vegetables, fruiting trees and the likes. What doesn't find itself on the crop eventually goes to the soil, and eventually to other areas like grass or to the groundwater. Additional chemicals, such as Glyphosate, are also used on seeds like wheat, to dry them faster before grinding them to powder. Therefore, ever since the dawn of pesticides, we rarely expect well water or a certain food sample to be of pure zero concentration of pesticides. The importance is not to exceed the acceptable limit.

The effect of a pesticide on the environment and people depends on the toxicity of the product, its dosage to be used, and how long it can persist in nature. It also relies on correct usage (new spraying tools), correct frequency of application and proper storage. Currently, of the 276 legally marketed substances in Europe, 51% are either designated as carcinogenic or endocrine disruptor or result in developmental toxicity. Therefore, it is logical that all industrial countries have food and water monitoring programs that measure pesticide residues.

Direct contact with pesticides can have various symptoms depending on the chemical type. Organophosphates family (DEMOL ®) are lipid soluble, and can even enter through your skin! Playing in a garden that was recently sprayed while having exposed skin is not recommended! Once inside the body it can lead to vagus nerve stimulation all over the body, and needs prompt emergency care. Choline-esterase levels in the blood, especially in RBC's drop significantly. DDT family of pesticides (banned in developed world) have immediate irritant effect on some people, like in lungs and eyes, but have more serious "estrogenic" effect in humans, which can lead to serious problems in pregnant women; Its cancerous effect has not been fully established. While DEMOL is a water-diluted chemical sprayed by farmers directly on greens, DDT is a chemical that is turned into "white" gas and sprayed in communities to counter mosquitos mainly. Finally, herbicide family chemicals like 2,4-D or weed killers: They are used by farmers and gardeners alike to keep the fields clear of weeds. 2,4-D compound is a possible carcinogen, plus a known lung irritant and can damage kidneys. Glyphosate (RoundUp ®) - a herbicide- is used to dry barley and wheat before marketing them (>90% of market wheat has been treated), and is toxic to the intestines and liver when used without following label instructions.

To counter all these chemicals, some countries have turned to Genetically Modified Crops (GMC). These are more expensive seeds that are altered genetically to be more resilient to bad weather, and even to pests and weeds. So, farmers will use less or no chemicals to have good products in the end. Scientifically speaking, these plants have extra codes of DNA that give them that extra adaptability. To us humans, DNA from a plant or cow or chicken is all the same: it's broken down the same way. So it shouldn't matter. At the same time, we know that some of our current DNA codes have come from viral infections and possibly plants; so will eating GMC DNA lead to this DNA in our genes in the future triggering something bad? We don't know yet. GMC products (labeled in Europe and USA) have been around for about 10-20 years now. They are said to be safer than using frequent pesticides, and so far don't harm us.

In conclusion, pesticides and herbicides are chemical products made to kill or stop the growth of other living organisms. Most are harmful to us if used improperly, and their frequency and method of use must be monitored by specialized governmental personnel continuously. As an alternative, already established GMC products can be used to reduce pesticides in an already pollution-burdened environment.

Infos

Huit Ans de Vie en Moins pour les Fumeurs

Une étude réalisée par l'Institut Scientifique de Santé publique Belge s'est penchée sur l'espérance de vie des fumeurs, des non-fumeurs et des anciens fumeurs. Sans surprise, le tabac réduit la longévité: près de huit ans pour les fumeurs et environ deux ans et demi pour ceux qui sont parvenus à arrêter. Néanmoins, les chercheurs affirment que «que plus l'abandon du tabac est précoce, plus les avantages en termes de santé sont appréciables».

Pour arriver à cette conclusion, les chercheurs ont comparé les décès de populations fumeurs et non-fumeurs survenant entre 1997 et 2011. La France compte aujourd'hui environ 16 millions de fumeurs (soit 32 % de la population) contre près de 5 millions au Canada (16 % de la population). Des proportions régulièrement en baisse depuis les années 60, mais encore bien trop élevés compte tenu des risques encourus.

Une fin de vie plus pénible

L'étude ne se borne pas à la comparaison de l'espérance de vie. Les scientifiques ont également comparé la qualité de vie et les problèmes de santé des différents profils. Sans surprise, les résultats indiquent que les fumeurs ont une fin de vie plus difficile que les non-fumeurs. Ils vivraient en moyenne 6 ans en moins bonne santé que les non-fumeurs, contre 3 ans de plus «seulement» chez ceux qui ont pris la décision d'arrêter au cours de leur vie. Une preuve tangible de plus pour raccrocher définitivement.