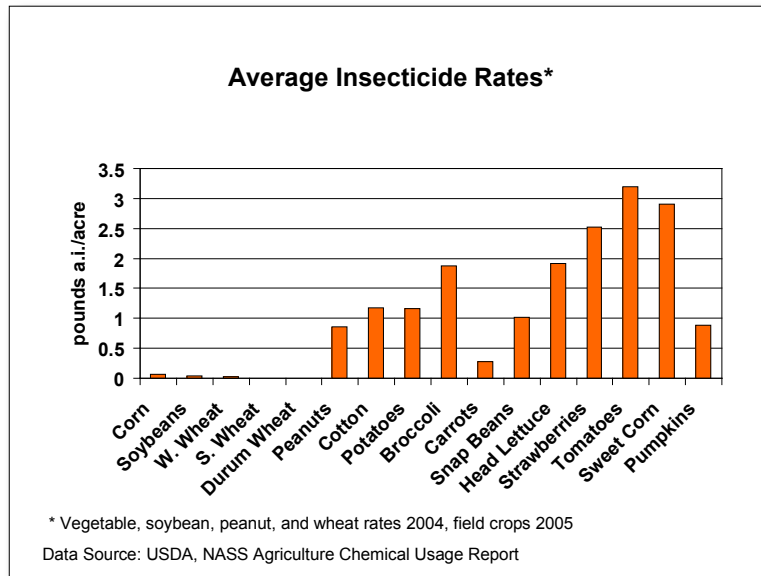


Sustainability

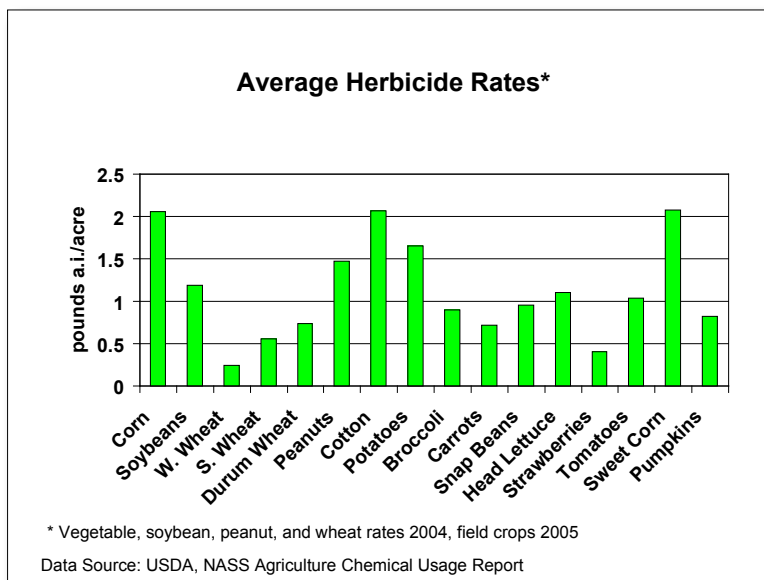
Maintaining Crop Integrity with Pesticides



Pesticides—fungicides, herbicides and insecticides—protect crops such as corn from insects, weeds, rodents, diseases, and other pests and lead to more efficient production, which in turn leads to less environmental impact. Pesticides enable crop producers to compete profitably in the global marketplace and are a necessary protection for our food production system.

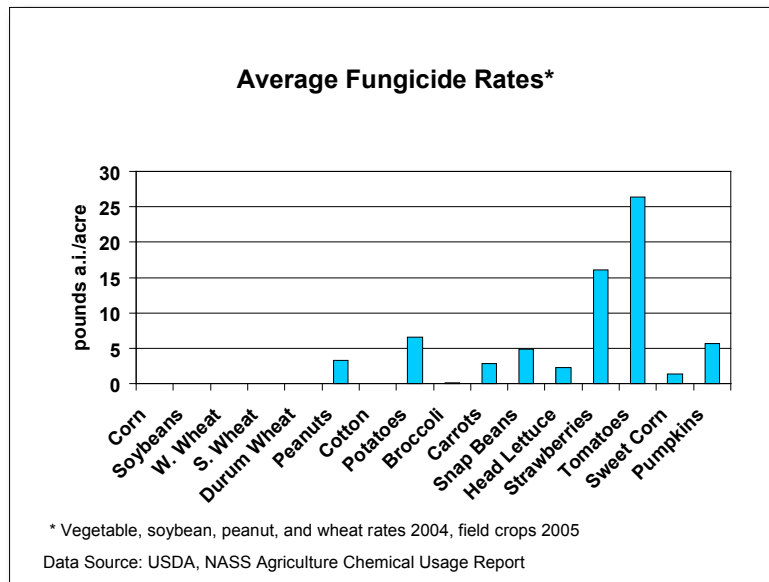


Agricultural use accounts for 75 percent of all pesticides, but 85 percent of all U.S. households have at least one pesticide in storage and 63 percent have one to five pesticides stored (Delaplane). Yet many believe pesticides are dangerous and would support a total ban. Such a measure would mean elimination of our ability to quickly rid homes of ants, fleas, termites or other pests; to preserve vegetables from mold; or to prevent food-borne toxins. This could result in food shortages with soaring prices, or outbreaks of long-forgotten diseases.



As the global population grows and farm acreage shrinks, food production efficiency cannot be jeopardized. Fortunately, through research, education and government oversight the risks associated with pesticides are being reduced and more benign chemicals, pest-specific pesticides, and improved application methods are being introduced.

The most recent (2006) U.S. Geological Survey (USGS) report on the quality of the nation's streams and ground water states that "pesticides were commonly detected at concentrations far below Federal or State standards and guidelines for protecting water quality" (Gilliom). Pesticides registered in the last 20 years are less toxic and degrade more rapidly. Furthermore, the USGS data show, when detected, the concentrations are miniscule and do not affect water quality. Even older pesticides that are no longer in use are declining in the environment, according to the USGS data.



The Environmental Protection Agency regulates pesticides and increasingly has established stricter tolerance levels. In the 1950s, trace amounts of substances could be detected at one part per million; anything below this level was considered "zero." By the 1990s trace amounts could be detected near one part per quadrillion (To put this in perspective, one grain of salt in an Olympic-sized swimming pool equals one part per trillion) (Delaplane).

Additionally, advanced detection systems enable trace amounts of pesticide residues in the air, soil and water to be detected. Often lost to the casual observer is the toxic relevance when a trace amount is so miniscule.

Increasingly, farmers have turned to integrated pest management practices (IPM), which allow them to reduce energy use, environmental risk and production costs while maintaining the quality of their agriculture products and helping improve water, air and soil quality. IPM is site-specific in nature, and includes prevention, avoidance, monitoring and suppression of weeds, insects, diseases, and other pests.

IPM combines biological, cultural and other alternatives to chemical control with the planned use of pesticides to keep pest populations below damaging levels, while minimizing harmful effects of pest control on humans and natural resources. As part of a conservation management system, IPM contributes to the overall prosperity of the farm and the quality of the environment.

Key Points:

- Pesticides enable crop producers to compete profitably in the global marketplace and are a necessary protection for our food production system.

- Pesticides—fungicides, herbicides and insecticides—protect crops such as corn from insects, weeds, rodents, fungi, and other pests and lead to more efficient production, which in turn leads to less environmental impact.
- Agricultural use accounts for 75 percent of all pesticides, but 85 percent of all U.S. households have at least one pesticide in storage and 63 percent have one to five pesticides stored (Delaplane).
- Integrated Pest Management (IPM) systems allows farmers to reduce energy use, environmental risk and production costs while maintaining the quality of their agricultural products.

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