Horrigan, Leo, Robert S. Lawrence, and Polly Walker. "How Sustainable Agriculture Can Address the Environment and Human Health Harms of Industrial Agriculture." *Environment Health Perspectives* 110.5 (2002): 445-456. (Reviewed by Jessica Miller)

"How Sustainable Agriculture Can Address the Environment and Human Health Harms of Industrial Agriculture" discusses many topics relating to harmful effects of agriculture. The general topics covered are: "impact of food production on the environment," "impact of food production on diet and health," "diet and disease," "pesticides and health," industrial food system and public health," and "sustainable agriculture." While the Willamette River is never discussed directly, many issues relating agriculture pollution sources to human health effects are discussed.

Pesticides are addressed under the impact of food production section and it is claimed that "3 million tons of pesticides" are used annually and are made from about "1,600 different chemicals." A study of the St. Lawrence River Valley in Canada presents a link between pesticides and severe deformities in amphibians. Specific human health effects of pesticides are later discussed in the "pesticides and health" section.

Agriculture impact on waterways is also discussed as a subsection of the impact of food production category. The article quotes the EPA as having blamed farming for "70% of the pollution of the nation's rivers and streams" and that "runoff of chemicals, silt, and animal waste from US farmland has polluted more than 173,000 miles of waterways."

This article connects many of the pollution sources, effects on waterways, and corresponding human health effects.

## Critique

While "How Sustainable Agriculture Can Address the Environment and Human Health Harms of Industrial Agriculture" does not directly discuss the Willamette River, the information provided is certainly relevant to our local rivers and valley.

I read a critique of Lucy Cho's in the Pollution Sources category and noted that while a report she read gave much information on the pesticides present in the river, human health effects were not discussed. This article directly relates pollution sources with effects on the waterways and corresponding human health effects associated with ingestion of contaminated waters.

This article gives much scientific evidence, yet provides it in a non-scientific language so that any interested party could understand and benefit from the knowledge.

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