

Iowa Farmer Today

Report shows farming cancer risks

By Mandy Archer

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Safety
Watch



Iowa's cancer rates are the second highest in the nation, with prostate, breast, lung cancer and melanoma being major contributors.

The Iowa Cancer Registry's "Cancer in Iowa 2025" report showed Iowa has a high proportion of the population who are cancer survivors compared to other states. One in 20 Iowans have had a diagnosis of cancer in their lifetimes.

In the general population, the common cancers in Iowa are often attributable to lifestyle factors like diet, exercise, sun exposure and personal habits of smoking or drinking. However, it is clear that no one risk factor causes cancer, rather, it is a series of lifestyle, genetic and environmental factors that determine an individual's cancer risk.

Since lung cancer causes the most cancer deaths in Iowa, prevention programs and earlier identification are important.

Dr. Mary Charlton, director of the Iowa Cancer Registry and president of the Iowa Cancer Consortium, said smoking and tobacco use cause approximately 80% of all lung cancer cases. Iowa receives an F rating from the American Lung Association every year for its low taxes on tobacco products and lack of funding for prevention programs, which has remained the same since 2007.

Charlton said raising the tax by at least a dollar is the most effective prevention measure against lung cancer.

The second leading cause of lung cancer is radon, so it is also important to test your home for radon and install a mitigation system.

Screening for lung cancer is widely available but under-used, she said. Only 17% of Iowans eligible for screenings are doing so. She said many rural hospitals are able perform the low-dose CT scan needed to test for lung cancer.

Dr. Laura Beane Freeman, an occupational and environmental epidemiologist and senior investigator at the National Cancer Institute, said farmers have lower drinking and smoking rates than the rest of the population. They are out in the fields, living active lifestyles that may be protective against cancer.

But other risks, including pesticide exposures, are what Beane Freeman and others are studying with the Agricultural Health Study.

The study started with the National Cancer Institute and the National Institute of Environmental Sciences, with later collaboration with the the EPA and the National Institute for Occupational Safety and Health. The Iowa Cancer Registry has been an important partner from the beginning of the study.

Beane Freeman said this study includes 89,000 participants, including pesticide applicators, mostly farmers, and their spouses, from Iowa and North Carolina.

She said this study is the preeminent study on agricultural pesticide and cancer exposures in the world. The cohort of applicators continues to answer questions about their lifestyles, including smoking and drinking use, medication use, dietary information and diseases. Importantly, the cohort is also regularly linked to the state cancer registries to determine the cancer experience of its participants.

A recent analysis found pesticide applicators had standardized cancer incidence rates that were 10% below the general population. The Agricultural Health Study also found specific cancers that were significantly lower in the cohort than the general population.

Major sites with lower incidence ratios included bladder, esophagus, larynx, lung and pancreas.

However, the study named cancer sites for which the AHS participants had elevated rates vs. the general population including cancers of the lip, prostate, testes, certain lymphomas and leukemias, and thyroid cancer.

Since melanoma is a top five cancer in Iowa and occurs at higher rates for farmers, and specifically for spouses of farmers, it is important to brush up on the ABCDEs of melanoma by checking moles for asymmetry, irregular or scalloped borders, abnormal color, diameter 6 millimeters or larger, and evolution.

Practice sun safety by covering up with loose-fitting white clothing and wear a broad-brimmed hat that covers the back of your neck.

While no one is immune from cancer, it is important to prioritize healthy living and healthy working to reduce risks over a lifetime.

“The other thing to remember is that cancer can take decades to develop, so our exposures now don't really explain our cancer incidence rates now,” Charlton said. “So, that's what makes cancer so complicated and why it's so hard to pinpoint what's causing all the cancer in Iowa.”

Farmers have historically had lower rates of smoking and drinking, and we hope this trend continues. Exposure to sun and minimizing pesticide exposures by following label guidance are preventive practices that can reduce exposures over a lifetime.

If you have concerns about cancers, talk with your health care providers about your eligibility for screening programs.

For more information regarding the Agricultural Health Study and its related findings and publications, visit aghealth.nih.gov/.

To look at the Iowa Cancer Registry's "Cancer in Iowa 2025" report and previous years' reports, visit bit.ly/3HcpzMY.

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