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COMPREHENSIVE AGRICULTURAL HEALTH STUDY RESULTS

At the applicator certification meetings across the area this winter, we shared a summary of the first 12 years of a long-term study in Iowa and North Carolina of pesticide applicators and farm families. This is the largest most comprehensive study of agricultural health ever conducted in the United States. Thanks to the generosity of almost 90,000 participants, scientists have begun to better understand the relationship of certain farm chemicals (pesticides), exposures to the chemicals and health.

Farmers in this study tend to be healthier and live longer, have lower death rates from heart disease and lung cancer than the general population. On the other hand, farmers have a higher risk of injury, respiratory problems and skin conditions. The long term comprehensive study does report certain cancer concerns and follow-up on these associations.

Fourteen percent of applicators reported a high exposure event with pesticides. This higher risk exposures were while repairing sprayer application equipment, delay in changing/washing pesticide soil clothing, and mixing pesticide-soiled clothing with family wash. The good news in the study was use of chemical resistant gloves and personal protective equipment doubled reducing pesticide exposures.

The overall cancer rates were lower in 18 out of 20 cancers compared to the general public. With farmers handling certain pesticides, prostate cancer was higher by 14 percent and spouses had a 50 percent higher risk of skin melanomas.

Higher prostate cancer risk was associated with methyl bromide fumigant use and with the old chlorinated pesticides in men over 50 years old. Examples are the old aldrin, chlordane, DDT, dieldrin, endrin, hexachlor, and toxophene users. Five pesticides were associated with men with a family history of prostate cancer. They are the old herbicide butylate (Sutan), and insecticides chlorpyrifos (Lorsban), coumaphos (Co-Ral), fonofos (Dyfonate), and permethrin (animal use).

Lung cancer in pesticide applicators has a possible association with metolachlor (Dual), pendimethalin (Prowl), chlorpyrifos (Lorsban), and diazinon. More follow-up is needed on this. Good news for farm wives, there is no clear association with breast cancer and 50 pesticides used in agriculture.

The number one used pesticide in the United States concerning pounds of product use is in your home, chlorine bleach. The number one agricultural used pesticide is Roundup or Glyphosate herbicide, used by 75 percent of the male farmers. This study indicates no increased risk of prostate or lung cancer, but one follow-up is needed on one type of cancer called multiple myeloma (plasma cells, involved with immune system and the body's ability to fight infections and diseases).



More results will be released in the next several years. The bottom line is stay healthy, protect yourself when using and applying pesticides and always use the personal protective equipment as the label directs.

Randy Pryor, Extension Educator
University of Nebraska-Lincoln Extension in Saline County
306 West 3rd Street, Wilber, NE 68465
Phone (402) 821-2151 • Fax (402) 821-3398 • e-mail: randy.pryor@unl.edu