

Agricultural Pesticides Linked To Fetal Death

By Keith Mulvihill

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NEW YORK, Feb 13 (Reuters Health) - Pregnant women living close to farms where pesticides are sprayed on fields may have an increased risk of having a fetus die due to birth defects, according to a report.

However, lead author Dr. Erin M. Bell cautions that "this is an area of research that will require further investigation." Bell completed the research while at the University of North Carolina School of Public Health, Chapel Hill, and is currently at the National Cancer Institute in Bethesda, Maryland.

"Future research will need to define actual exposures to pesticides and their effect on particular time periods during a woman's pregnancy," she said in an interview with Reuters Health.

In the study, Bell and colleagues evaluated 1984 data from 10 California counties. At that time the law required that applications of certain pesticides be reported to the state. The investigators identified 73 women who had a fetus die due to heart malformations, anencephaly (a condition in which parts of the brain or spinal cord are missing), or other problems.

This group of women was compared with 611 women who gave birth to infants with no birth defects, and both groups of women were matched to data on pesticide applications in their area. The findings are published in the March issue of the journal *Epidemiology*.

"We found a slight increase of fetal death due to birth defects when pesticides were applied near where the pregnant women lived," Bell said.

The timing of the exposure played an important role, Bell noted. If the women were exposed during the 3rd and 8th week of pregnancy--the point when the fetal organs are forming--the fetus seemed to be the most vulnerable to the effects of pesticide exposure.

"The association increased for women living within 1 mile of the field where pesticide application occurred," Bell told Reuters Health. However, the researchers were unable to directly measure the women's exposure to the pesticides.

"Our exposure classification method did not guarantee that a mother was, in fact, exposed, because wind and weather conditions, hour of application and the location of the mother at the time of the application are all factors that would determine actual exposure," Bell and colleagues write.

More study is needed to confirm the association, the authors conclude.

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