

AGROMEDICINE PROGRAM UPDATE

MUSC DEPARTMENT OF FAMILY MEDICINE – DIVISION OF PUBLIC HEALTH AND PUBLIC SERVICE
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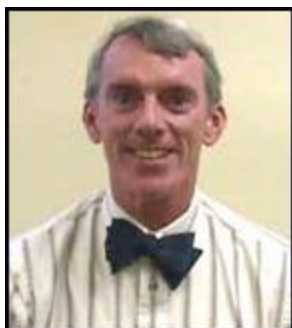
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Program Notes

➤ Medical Director

Dr. William M. Simpson, Jr. has assumed the duties of medical director of the Agromedicine Program. Dr. Simpson, a professor in the Department of Family Medicine at MUSC, has served as the associate medical director since 1988.



Dr. Simpson

Dr. Stanley Schuman continues to work with the program and is active with consultations, on-campus teaching, and the *Journal of Agromedicine*.

➤ Research

The Agromedicine Program has maintained a hospitalized pesticide poisoning

database for cases occurring in South Carolina since 1971. Our latest study was published in 1997 and included both inpatient and outpatient cases (treated in emergency rooms) for 1992 - 1996.¹

We are in the process of updating our records for 1997 - 2001. The Office of Research and Statistics of the State Budget and Control Board has provided us with inpatient and emergency room data for pesticide poisonings from the S.C. Hospital Discharge Database. Trends in pesticide poisonings will be identified along with ratios of inpatient to outpatient cases for 1997-2001. Data for 2001 will not be finalized until early summer.

¹Caldwell ST et al. Hospitalized pesticide poisonings decline in South Carolina, 1992-1996. *J SC Med Assoc* 1997; 93(12):448-452.

1-800-222-1222
Nationwide Poison Control

The American Association of Poison Control Centers has announced a new nationwide phone number that

will permit callers to reach their local poison control center. The new toll-free number is 1-800-222-1222.

When this number is dialed, a computer identifies the caller's area code and automatically connects the caller with the nearest poison control center. This new telephone number links the nation's 65 poison control centers into a countrywide network for the first time.

Farmers' Recall of Pesticide Usage Practices

Epidemiological studies designed to examine associations between pesticide exposure and diseases have often relied on data obtained by interview or from self-administered questionnaires. Study participants have been asked to recall the exact pesticide, frequency of application, application rates, and safety and handling practices over decades of use.

There has been little research evaluating the credi-

bility of data obtained from self-reports on the usage of agricultural chemicals. A study² published last month in *Epidemiology* sheds some light on this question.

Scientists have analyzed repeat pesticide usage in interviews of 4,088 pesticide applicators in Iowa. The applicators were enrolled in the Agricultural Health Study. These participants completed questionnaires on pesticide practices and life styles when they enrolled in the health study and then again one year later when undergoing applicator certification or training.

Major findings of the study include the following items:

- "Percentage agreement for ever-/never-use of specific pesticides and application practices was quite high, generally ranging from 70% to more than 90% ..."
- "Agreement was lower (typically 50 - 60%) for duration, frequency, or decade of first use of specific pesticides."
- "For years and days per year mixing or applying any pesticides, exact agreement percentages were 55% and 45%, respectively ..."

The study concludes that agreement for self-reported pesticide usage is similar to or better than risk factors evaluated in epidemiological studies (smoking, alcohol, consumption of fruits and

vegetables, and physical activity). Since risk of disease has been linked to these factors, then self-reporting of pesticide exposure is also a valid tool in assessing exposure and disease.

The authors acknowledged "... the level of agreement on pesticide reporting decreased as the amount of detail sought increased, such as the number of years a person applied specific pesticides instead of ever-/never-use."

²Blair A et al. *Reliability of reporting on life-style and agricultural factors by a sample of participants in the Agricultural Health Study from Iowa. Epidemiol 2002; 13(1):94-99.*

Safer Ground Beef

by Dr. Stanley Schuman

In May 2000, Huisken Meats of Chandler, Minnesota became the first company in the nation to market irradiated beef.³ This was prompted by the need for safer beef following the "Jack in the Box" incident on the West Coast in 1993 and the Nebraska incident in 1997 of *E. coli 0157:H7* contamination that led to the largest ground beef recall in history.

Scientists had known for decades that irradiation of food was a safe and effective way to kill bacteria in food. Thanks to the initiative of the Minnesota Department of Health begun in the fall of 1997, an educational process on the safety

of irradiated beef (especially with a new electron beam methodology), has begun to overcome resistance of beef marketers and consumers.

Despite the ability of unscientific, "anti-radioactivity" propagandists to generate fear of "cancer and birth defects," stores are now selling safer ground beef successfully throughout Minnesota and in 29 other states (up 35% in 2001 compared to 2000). The Minnesota Beef Council worked for five years (1997-2001) in a two-pronged program of industry and consumer education to gain acceptance of scientific fact over fear.

³Eustice RF. *Irradiated ground beef rapidly gaining widespread consumer acceptance. J Assoc Food and Drug Officials 2001; 65(4):44-48.*

