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A Survey of Home Canning In Three Kansas Counties[1]

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Homegrown fruits and vegetables are becoming increasingly popular as the number of households with gardens has risen steadily during the past few years. In 1976 the USDA's Economic Research Service surveyed households and found almost 48% with gardens, and 34% of the households had canned fruits and vegetables in 1975 (Kaitz, 1977). Homemakers frequently rely on friends and relatives for information on canning methods. A dangerously high percentage of home canners use other hazardous canning practices (Davis, 1977).

Home canners in Kansas were interviewed about their methods and sources of information. To reach home canners, the interviews were conducted in sections of stores displaying home canning equipment. The sample consisted of 90, 44, and 39 respondents in Riley, Stevens, and Montgomery counties representing north central, southwest, and southeast Kansas areas and varied population densities.

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Questionnaires were designed regarding the number of years the subject had canned foods, reasons for canning, sources of information, kinds and amounts of food canned the previous year and methods (pressure, boiling water bath or open kettle) used for each, source of food, and demographic information. Sources of information were classified as follows: extension and USDA bulletins, commercial instruction booklets, general cookbooks, food preservation cookbooks, friends and relatives, professionals, and newspapers and other sources.

Results and Discussion

One hundred seventy-three home canners responded to the questionnaire: 49 from rural farms, 44 from rural non farms, and 76 from a city or town (4 unknown). By far the majority (143) grew the produce they canned. Others purchased or were given the foods they canned. Most of the respondents had canned for more than three years.

Commercial sources, including Ball and Kerr canning booklets and pressure canner instructions, were used more frequently (27.7%) as the primary source of canning information (Table 1). State and federal extension bulletins were used by 23.5% of the homemakers, and friends and relatives by 20.0%. The respondent's mother was the relative most frequently mentioned.

Table 2 shows the percentage of foods canned by each method. All foods canned by the pressure method are considered safe. Vegetables, however, should not be canned by other methods, and canning tomatoes and tomato products in a boiling water bath is questionable. The open kettle method is recommended only for jellies; yet 20.4% of the vegetables canned were processed in a boiling water bath and 1.9% by the open kettle method. Of the tomatoes, 61% were processed by the boiling water bath and 11.4% by open kettle. Some of the 43.5% tomato products canned in a boiling water bath may have been safe if the recipes for ketsup, chili sauce, etc. included enough acid to have a pH lower than 4.5. The open kettle method, however, was used for 43.5% of the tomato products. The open kettle method was used in every food category except meat (one person processed meat in the oven).

Table 1—Percentage of homemakers using various sources of canning materials as primary sources of information.

Source	% Homemakers
Commercial	27.7
Extension	23.5
Friends and relatives	20.0
Food preservation cookbooks	15.3
General cookbooks	10.6
Professional	2.3
Newspapers and other sources	0.6

Although approximately 50 percent of the homemakers interviewed used commercial or extension materials as their primary source of information, many processed foods by questionable methods. Frequently the home canner used acceptable methods for some of the foods, but used procedures not recommended for others.

Of the homemakers using commercial information, 63.8% followed acceptable procedures for all foods canned. When extension information was used 22.5% canned all foods acceptably, and when the homemakers relied upon friends and relatives, 20.6% canned all foods by a recommended method. Of the homemakers relying upon other sources of information, 24.5% canned all foods safely. If a homemaker used a commercial booklet, such as Ball or Kerr, she had instructions and recipes available for several foods and preservation methods. Extension booklets cover vegetables, pickles, meat, and jams and jellies in separate publications. Although a homemaker may use an extension bulletin to can one food, such as green beans, she may not have the appropriate bulletin to can another food, such as pickles, and resort to an incorrect preservation method. Combining food categories into one extension publication would increase publication costs, but it would decrease the need for several small booklets and would increase the homemaker's chances of having all recommended canning procedures available. The reliability of friends and relatives for canning information is questionable. Current research has revealed that some previously recommended canning procedures are not safe. If a homemaker had learned to can from her mother or an

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Table 2—Percentage of foods canned by various methods.

Food category	% by pressure	% by boiling water bath	% by open kettle	Total number of foods canned[1]
Fruits	20.8	50.0	29.2	120
Vegetables	77.7	20.4	1.9	206
Tomatoes	27.6	61.0	11.4	105
Tomato products	13.0	43.5	43.5	23
Pickles	6.8	50.0	43.2	118
Jams	6.7	40.0	53.3	15
Jellies	0.0	13.0	87.0	23
Meat[2]	83.3	0.0	0.0	6
Other (pie filling)	0.0	100.0	0.0	1

1—Total number of persons canning a food from the category x number of different foods canned in that category.
2—1 canned meat in the oven.

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older friend, the method she learned may be outdated and unsound. Also, oral instructions easily are misunderstood.

Safe canning procedures are important for both safety and economy. Sixty-two of the respondents mentioned food prices as a reason for canning. If foods are canned incorrectly, a health hazard as well as an economic loss results.

Results of this study of Kansas homemakers concur with the findings of the USDA (Davis, 1977) for the general U.S. population which indicated that many home canners are using unacceptable canning procedures based upon unreliable sources of information.

References

Davis, C. 1977. Home canning. ARS-NE-36. Consumer and Food Economics Institute. ARS, USDA.

Kaitz, E.F. 1977. Home gardening and incidence of freezing and canning. ARS-NE-36. Consumer and Food Economics Institute. ARS, USDA.

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