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**THE NUTRITIONAL VALUE OF POULTRY MEAT — PART I FAT AND CHOLESTEROL CONTENT**

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The growing concern among consumers for food products that are perceived as healthy and nutritious has and will continue to influence the retail market for poultry products.

In order to sustain and preferably expand beyond the success already experienced by the poultry industry, producers and processors must recognize the nutritional needs of the American public and the relative contribution which poultry meat can make.

Because of studies linking dietary intake of fat with atherosclerosis and certain forms of cancer, the National Research Council and other recognized health organizations have recommended a reduction in the amount of fat consumed by Americans from the current average level of approximately 40 percent of dietary calories to less than 30 percent.

In addition, it is recommended that less than 10 percent of calories be derived from saturated fats. Characteristically, saturated fats are "solid" in consistency at room temperature, whereas the more unsaturated fats (eg, polyunsaturated)

rates) tend to be more liquid or oily.

Constant bombardment of consumers with nutritional recommendations to reduce fat and cholesterol intake occurs through the media and by means of food product labelling and advertising. Reflecting the impact of such efforts, it is estimated that 1/4 of all consumers consider nutrition in their food purchasing decisions, with 30 percent specifically concerned with fat and cholesterol.

Ironically, although nutritional recommendations are to reduce the total quantity of animal products consumed, per capita total meat consumption has steadily increased, with 213 pounds per capita consumed in the latter part of the 1980s, and projections for this to increase an additional 10 pounds per capita over this decade.

However, in response to the emphasis on reducing fat and cholesterol intake, the proportion of red meats versus poultry consumed has changed dramatically, with poultry continuing to increase its market share, and a projection that this share will reach 45 percent of total per capita meat consumption in the 1990s. This increase in poultry consumption reflects both the competitive price of poultry meat at the retail level, and a perception that poultry meat is "better" than red meats because it is lower in fat and cholesterol — a perception that will be explored in this column.

Poultry makes a significant contribution to the American diet, particularly in terms of protein, niacin, and vitamin B6. The nutritional content of poultry meat products can vary substantially with portion (for example, breast versus thigh) and method of preparation. For example, frying (batter-dipped) can increase the calorie content by more than 30 percent and almost double the total fat content of a given portion.

Perhaps the greatest areas of misunderstanding with regard to the nutritional value of meat products are those of cholesterol and of fat composition. Cholesterol is synthesized in animal tissues (primarily in the liver and intestine, but also in peripheral tissues) and is present mainly as a constituent of both interior and exterior cell membranes and the myelin sheaths ("skin") surrounding nerve fibers. It is thus essential for the normal structure and functioning of all cells in the body.

Cholesterol is also used by the body for synthesis of bile salts (necessary for emulsifying dietary fats; an important step in the digestion and absorption of dietary fats and fat-soluble vitamins), vitamins (vitamin D3), and steroid hormones (eg, cortisol, testosterone, estrogen). It is *not* found in foods of plant origin (plant cell membranes do not contain cholesterol), so that plant oils (eg, corn, peanut, canola, olive, etc.) are naturally cholesterol-free.

The cholesterol content of muscle foods is relatively consistent. Equivalent weights of poultry meat, with or without skin, are similar in cholesterol content. For example, 100 grams (about 3 1/2 ounces) of roasted chicken (light meat portion) with skin, or 100 grams without skin, contain about 85 milligrams of cholesterol. Also similar to lean red meat cuts, for example, 100 grams of roasted/broiled beef top round, pork loin (blade), or leg of lamb (shank) contain 85 to 90 milligrams of cholesterol. Even fried (pork) bacon is comparable in cholesterol content (85 milligrams per 100 grams).

The more substantial difference between poultry and red meats (and, in fact, most of the variability in nutrient content of muscle foods in general) is in fat content and

composition. The total fat content of poultry meat varies considerably with muscle type, and is more than double for dark meat portions (leg, thigh) which contain predominantly "red type" muscle fibers than light meat portions (breast) which contain predominantly "white" fibers. This reflects a greater amount of fat distributed throughout the muscle (intramuscular fat) in red than white muscles.

This difference also contributes to an almost 20 percent greater calorie content, on an equivalent weight basis, for dark than light meat. The inclusion of skin

increases the total fat and, therefore, calorie content (60 to 150 percent and 14 to 25 percent, respectively) of each portion.

Overall, for roasted poultry meat without skin, total fat content ranges from approximately 3 percent (turkey, light meat) to 10 percent (chicken, dark meat). Because meats lose a significant amount of fat in cooking, values based on raw meat overestimate fat consumption. In contrast, beef cuts range from approximately 5 percent (top round, good/select) to 21 percent (chuck blade, prime), or about double that of poultry meat.

## Farmers Union Announces Disaster Relief

**HARRISBURG (Dauphin Co.)** — Pennsylvania Farmers Union President Robert Junk announced that the family farm organization has organized a "farmer-to-farmer" disaster relief effort to assist family farmers in hurricane-stricken areas of Florida and Louisiana.

"The devastation that Hurricane Andrew brought to rural areas in these states is incredible," Junk said. "Farmers have lost their livelihoods and their homes. And, as anyone stricken by drought last year can attest, struggling through mountains of government red tape to ultimately receive disaster assistance amounting to a few pennies on the dollar of loss just isn't the answer."

Junk praised existing efforts of the Red Cross and other disaster relief organizations, but noted that they have understandably concentrated on more populous areas.

"We want the farmers in Florida and Louisiana to understand

that farmers elsewhere in the country care about them and want to help them through these tough times," he said.

The farm leader explained that the farmer-to-farmer relief effort would involve two parts. First, a special account has been created already in PFU's Family Farm Foundation to accept cash contributions which will be forwarded to affected farmers. Second, the group will have a special collection site at its 21st annual convention, November 12-14, where farmers and others can bring canned goods, building materials, and other items to be taken directly to affected farmers.

Anyone wishing to make a donation to the farmer-to-farmer relief effort should make checks payable to PFU's Family Farm Foundation Relief Fund and mail them to Pennsylvania Farmers Union, 1337 North Front Street, Harrisburg, PA 17102.



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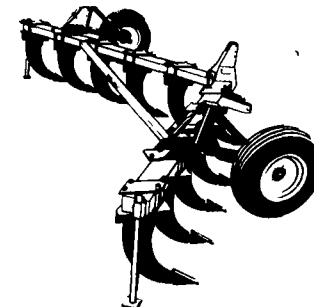
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