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Collaborative Wild Turkey Study

Introduction: The wild turkey study was conducted in collaboration with Cornell University Cooperative Extension Service and Texas Tech University. The study was funded primarily by New York State Department of Environmental Conservation and in part by Cornell University Cooperative Extension. The major objective was to obtain analytical nutrient data for locally sourced Eastern wild turkey (*Meleagris gallopavo silvestris*), the major species hunted and consumed in the U.S. Wild turkeys were harvested to obtain samples representing three typical geographical areas for this species during March through May 2015, based upon hunting season per location. The regions and respective states were North (New York), Midwest (Wisconsin), and South (Tennessee and Georgia). Collection protocols were provided to the hunters, who were National Wild Turkey Federation biologists.

Methods: The wild turkey carcasses were wrapped, frozen intact, and shipped on dry ice to Texas Tech University (TTU) Meat Science Laboratory. TTU meat scientists dissected the birds, weighed component parts, and prepared samples for analysis. Three of the six birds harvested (1 per region) were roasted to 165°F internal temperature, using standardized procedures. The other three birds (1 per region) were used for raw samples. Light meat (breast, wings) for analysis was obtained separately from each of the raw birds. Light meat from each of the cooked birds was obtained separately. This provided n=3 raw and n= 3 cooked samples. Dark meat (thigh, drumstick, back) values were obtained similarly in order to have n=3 raw, n=3 cooked samples. Raw and cooked dark meat and light meat samples were analyzed using validated methodology, standard reference materials, in house-control materials, and random duplicate sampling to monitor for quality assurance at USDA-approved laboratories.

Data description: These analytical data represent mean values for light meat and dark meat from wild turkey for proximate nutrients, some B vitamins, and selenium. Some nutrients such as retinol, vitamins D & E, folate, choline, pantothenic acid, and most of the minerals were obtained from composited samples (n=1), as indicated in the table with (1). Nutrient values followed by (1) are provisional values, indicating that additional research is needed in order to obtain information about variability. Individual fatty acid values (all analytical) were summed into respective fatty acid category totals. Release of these data as 'experimental/provisional' in USDA's MAFCL website is planned for 2020.

Significance: The data from this research provide a foundation and illustrate the need for additional data to determine estimates of variability. These data enable consumers, researchers and Cooperative Extension specialists to identify nutrient content of locally harvested wild turkey meat. The data support locally sourced food choices and improved scientific understanding of changing family food and community eating practices.