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AMOUNT OF FEATHER ON THE DOMESTIC FOWL,  
GALLUS DOMESTICUS

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ABSTRACT

Each year in the United States, approximately one hundred million pounds of feathers from the domestic fowl have been hauled to garbage dumps or used as fertilizer. Prior to 1939 the yearly importation of duck and goose feathers, mostly from Hungary, Poland, and China, was about three million pounds. All waterfowl feathers available in domestic trade are now being used by the armed forces for arctic sleeping bags and other military needs. As a result it has been estimated that fifteen million pounds of chicken feathers may be processed during 1943 for army and civilian uses.

Amount of feathers is very important functionally in the domestic fowl. Physiologically, they have a thermoregulatory value and would be expected to vary as the surface area. In addition, the plumage outline is a major characteristic of each breed. This plumage outline may vary for birds of similar body conformation. Feather size and the closeness with which the feathers are held against the body have been previously suggested as factors related to these variations.

One two-year-old White Wyandotte female weighing 5.6 pounds had a total of 9515 feathers, excluding filoplumes. For the group of adult males studied, feather weight increased from the smaller to the larger birds more rapidly than body weight. Feather number per pound of body weight was much greater in smaller birds. Breed and variety differences were shown to exist in feather weight and feather number per unit of body weight, in the average weight of a feather, and in linear measurements of specific feathers. Specific feathers of the Cornish breed were shorter and narrower than the same feathers of the Rhode Island Red and other varieties studied. Crossbreeds had the short feather of the Cornish and the wide feather of the Rhode Island Red parent.

