

Raising Broilers Separately By Sex in a Vertically Integrated Broiler Firm

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1. INTRODUCTION AND PRESENTATION OF THE PROBLEM

The broiler industry in the United States has grown rapidly during the last four decades. The microscopic broiler industry, producing only 34 million birds in 1934, has evolved into a major complex producing over 2.9 billion in 1974. In 1934, gross farm income from broilers amounted to \$19 million, amounting to 0.2 percent of the total farm income. In 1969, this rose to \$1,531 million, amounting to 2.8 percent of the total farm income. During the same period, per capita consumption of broilers rose from 0.5 pounds to 35 pounds (Faber, Fred, Irvin and Ruth, 1971). In 1974, the per capita consumption of broilers in the U.S. was 37.7 pounds per person (U.S. Dept. of Agri., 1975). The impressive performance of the broiler industry is primarily due to improvements in technology. Vertical integration and other changes in the industry structure contributed to improved performance.

Typically, broilers are grown together regardless of the sex of birds; however, some producers in the U.S. are beginning to rear male and female birds separately. Though there is apparently a lack of knowledge regarding economics of such a practice, the following factors have prompted growth of birds separately by sexes:

- (1) It has been known for many years that the male bird grows at a more rapid rate than does the female; hence, it may be possible that the desirable age to market each sex is different (Davis and others, 1957, p.241 and Smith and others, 1954, p.1082). Also, there are differences in feed conversion and other physical requirements between the two sexes (Dorminey and others, 1968 and Harms, 1959, pp.34-37).
- (2) Nutritional requirements of male and female birds may differ leading to the possibility of savings in feed costs if sexes are reared separately (Douglas and Harms, 1959, pp.786-790 and Laberg, 1970, pp.12-15).