

Petersen and associates (27) removed thyroids from 2 cows, causing clinical myxedema, and administered 30 milligrams of stilbestrol on alternate days for 31 and 21 days, without producing udder development. After recovery on raw thyroid feeding, stilbestrol administration resulted in milk production in 13 and 18 days in both cows. Peak yields of 10.4 and 14.4 pounds of milk were obtained, as against 8 pounds for a Holstein heifer treated similarly. They regarded failure of response to stilbestrol during myxedema, and response following thyroid therapy, as not due to a synergistic action of thyroxine and stilbestrol.

When synthetic estrogens were administered by mouth, using 50 to 200 milligram doses daily in the drinking water or as crystals in the feed, for 23 weeks, Folley and Malpress (10) obtained peak yields ranging between 2.5 and 19 pounds of milk daily from Ayrshire heifers. With each group lactation increased after stilbestrol was withheld from the feed. Daily doses of 50 milligrams were ineffective. "At the best, the peak yields were unsatisfactory" for commercial production, in the judgment of the workers. In other work (9) stilbestrol tablets were implanted subcutaneously in open heifers and dry cows on farms. Milking began once daily on the tenth day following implantation, increasing to twice daily when yields of 5 pounds were attained. Responses in maximum daily yields varied from 1 to 30 pounds of milk. A Shorthorn yielded 7,395 pounds of milk in a 365-day lactation. They concluded: "It seems probable that no advantage accrues from leaving the oestrogen tablets *in situ* once the lactation curve has reached its highest level; on the contrary, removal of the tablets at this point frequently caused a sudden rise in milk yield indicating a transition of the oestrogenic action from a stimulative to an inhibitory phase."

Spriggs (30) implanted stilbestrol in 50-milligram tablets in varying amounts subcutaneously in 5 heifers and 1 dry cow on local farms in southern England. Milking began 12 days after implantation. Rapid development of the udders and widely variable milk yields resulted. He observed that cows were generally less responsive than heifers; peak of lactation was attained more slowly than following normal calving; no changes occurred in response upon removal of the tablets and there was no increase in milk yield following withdrawal of the implants. Milk production resulting from subcutaneous implantation of stilbestrol tablets was as follows: