



*Research Paper*

## IMPACT OF THE SILKWORM EGG PRODUCTION SEASON IN BULGARIA ON THE MAIN QUANTITATIVE CHARACTER VALUES IN THE NEXT GENERATION

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### ABSTRACT

This study comprised of the Bulgarian commercial hybrids viz., SN1xI1 x M2xN2 and Super 1 x Hesa 2 and their reciprocal crosses authorized by the Government. The silkworm eggs were produced in two different seasons, namely spring, extending from early May to the end of June and autumn, spread from early September to the end of October. A fraction of the silkworm eggs, produced from the spring season and meant for rearing in the succeeding autumn season of the same year were HCl treated and the rest were allowed to undergo hibernation, for rearing during the spring of the next year. The silkworm eggs, produced during the autumn season were hibernated and designated for rearing during the next year's spring and summer-autumn seasons. The silkworm egg testing manifested that in the spring silkworm rearing, the main quantitative character values, such as pupation rate, fresh cocoon weight, silk shell weight and shell percentage were not influenced significantly by the egg production season. On the other hand, during the autumn rearing season, the fresh cocoon weight in the hybrid SN1xI1 x M2xN2 and the reciprocal tended to be lower for the hibernated eggs than in the HCl treated ones, while in the hybrid Super 1 x Hesa 2 and its reciprocal, the differences were negligible. The results obtained bring out that the silkworm eggs, produced during the less favorable autumn season in Bulgaria manifest lower cocoon weight in some hybrids, if reared during the autumn season of the next year.

**Key words:** *Bombyx mori* L., eggs, F<sub>1</sub> hybrids, rearing seasons, silkworm.