

THE EFFECTS OF FLOOD ON *L. DISPAR* EGG VIABILITY

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ABSTRACT

Generally in Romanian area, the Danube floods the forest stand of *Populus* and *Salix* when it reaches the share of 450 cm. The daily water level variation makes the eggs mass of *L. dispar* to stay under the water a different number of days (from few days to 30 - 60 days). The egg mass placed on the trees around the maximum flood level can stay under the water for short time (1-10 days) this way they are submissive to the running water conditions. The eggs mass placed on trees base or on the trees situated in the puddle can stay under the water a long period of time (20-30 days) even more then 60 days, so they are submissive to the stagnant water conditions.

Keeping the eggs mass under the water goes to effects on differential hatching of eggs depending on the kind of water (running or stagnant) the length of submersion and the gradation phase of the pest.

The eggs mass proceed from the gradations found in the eruption-crisis phases, are more sensitive at the floods comparing with the ones proceeded from gradations in incipient phase.

The eggs subjected to stagnant water submersion begin the stifle after the tenth day of staying under the water; after 12 days stifle 40% of eggs and after 18 days stifle 80% of eggs.

The eggs subjected to running water submersion begin the stifle hardly after 15 days, arriving after the 18-th day of submersion to stifle 40% of eggs. After 21 days of submersion irrespective of the kind of submersion (running or stagnant) the eggs stifle all or they remain capable of living only 1-2%.

The eggs that remain capable of living after the cessation of the submersion hatch differently in time, depending on kind of water and the length of submersion.

Irrespective of the length of submersion in running water system, 80% of the eggs that remain capable of living hatch after 20 days since the end of the submersion, the rest of 20% hatching after the 25-th day.

In stagnant water system, only 50% of the eggs that remain capable of living hatch after 20 days since the end of the submersion, the others hatching staggered in 30 - 40 days.

The eggs subjected to running water submersion a short period of time (3-6 days) hatch after 15 days, the ones that stay under the water 9-15 days hatch after 20 days and the one that remain capable of living after 18-21 days, hatches after the 25-th day since the end of the submersion.

The egg subjected to stagnant water submersion of short period of time (3-6 days) hatches after 15 days, the one that stays under water 9-12 days hatches after 20 days and the one that remain capable of living after 15-18 days, hatches after 30 days since the end of the submersion.

Following such a variability of eggs hatching of *L. dispar* the application optimal moment of control working will be established following of a careful analysis of the field real condition.

Keywords: eggs, hatch, flood