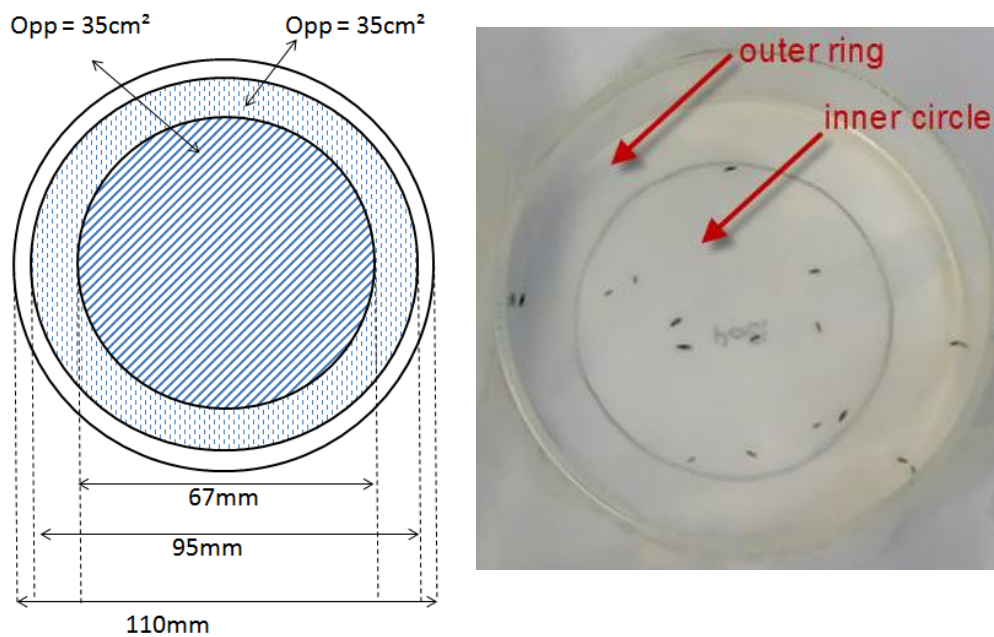


LICE PREVENTION FACTOR TEST USING A MODIFIED TOLOSA-ARENA TEST

METHOD

The aversive effect of lice towards LPF was evaluated using an “arena test”. The “arena” used in the test consisted of a transparent glass ring (95 mm in diameter, 50 mm in height) placed on a filter paper (Whatman No. 1, 110 mm in diameter) that had been divided into an inner circular zone and an outer ring, both with equal areas (see drawing and picture below). Treated arenas received 0.5 ml of a test solution (50 mg test product /ml acetone) applied to the outer ring. Control arenas had the outer ring treated with acetone only. Products were applied and the acetone was allowed to evaporate for approximately 10 minutes at room temperature. To increase lice mobility a fine mesh was placed between the filter paper and the glass ring.

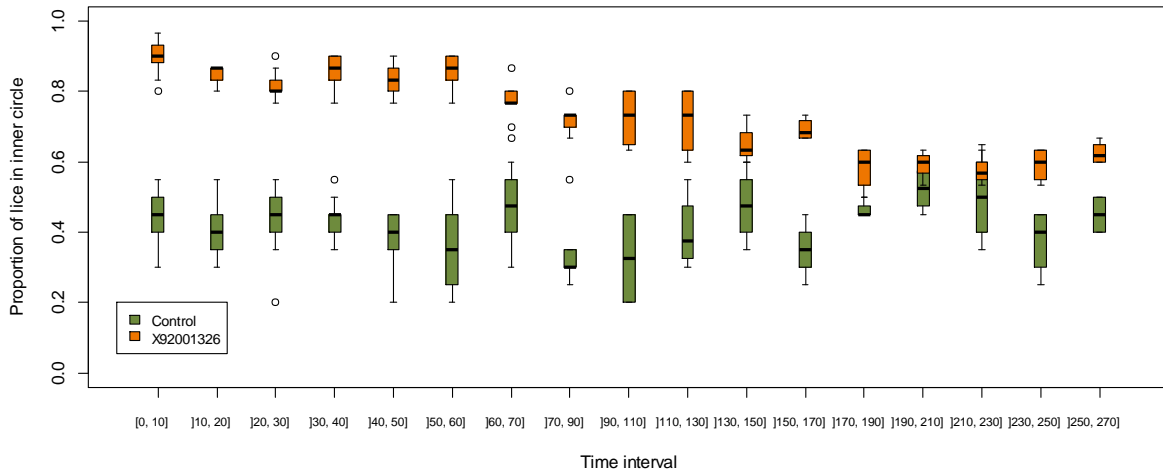
At timepoint 0, 10 lice consisting of a representative mix of instars and adults were placed in the center of the arena. The experiment was run for approximately 1h. Afterwards, the video sequence was used to determine the number of lice in the inner circle every minute after t0 for each arena. Toloza et al. (2006) reported that in the negative controls 86% of the lice naturally moved to the outer circle in close contact with the ring.



In this experiment five arenas were run simultaneously, two negative controls (c-1 and c-2) and three with the X92001326 (LPF) formula (1326-1, 1326-2, and 1326-3).

RESULTS

The boxplot below shows that significantly more lice remain in the inner circle for the test product X92001326 (LPF) than for the control product. This means that LPF is effective as a preventive measure to keep lice away.



Boxplot of the proportion of lice present in the inner circle (mean data) during each 10-min time interval.

REFERENCES

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