

实验研究

## 发酵昆布对钉螺的诱杀效果

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### 摘要

目的 观察钉螺食物引诱物对钉螺的诱杀效果。方法 以0.1 g发酵昆布(俗称海带, *Laminaria japonica* Aresch)为钉螺食物引诱物, 于12、24、36和48 h, 比较15、25和35 °C条件的诱螺效果。并将发酵昆布与灭螺植物天南星(*Arisaema heterophyllum* Blume)粉碎物配成颗粒灭螺剂进行灭螺实验, 比较25 °C, 30%和60%土壤湿度下, 颗粒灭螺剂的灭螺率。结果 在12、24、36和48 h不同时间点发酵昆布的诱螺率以25 °C最高, 35 °C最低。25 °C 48 h海带引诱物诱螺率(80.3%)显著高于对照组(17.0%) ( $P < 0.01$ )。颗粒灭螺剂灭螺率(85.3%)显著高于对照组(不含发酵昆布的颗粒剂, 26.8%) ( $P < 0.05$ )。25 °C条件下土壤湿度为60%时, 颗粒灭螺剂的灭螺率显著高于土壤湿度为30%的 ( $P < 0.01$ )。结论 发酵昆布食物引诱物对钉螺具有较强的诱杀效果。

关键词 [钉螺](#); [昆布](#); [食物引诱物](#); [灭螺剂](#)

分类号

## Luring Effect of the Fermented *Laminaria japonica* to *Oncomelania hupensis*

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### Abstract

Objective To study the attraction effect of the food attractants on *Oncomelania hupensis*. Methods *Oncomelania* snail food was prepared with the fermented kelp (*Laminaria japonica*) mixed with corn starch. Snails were fed with the food and kept for 12, 24, 36, and 48 h at 15, 25, 35 °C respectively. Meanwhile, snail-killing effect was tested by granules containing jack-in-the-pulpit (*Arisaema heterophyllum*) with or without the fermented kelp under the condition of 25 °C, 30% or 60% soil humidity. Results The snail-attracting rate of the fermented kelp was affected by the temperature, highest under 25 °C and lowest under 35 °C at any time point, with a rate of 80.3% in 48 h at 25 °C which was higher than that of the control (17.0%)

( $P < 0.01$ ). The snail mortality rate in the group using jack-in-the-pulpit with fermented kelp (85.3%) was higher than that of the group without fermented kelp (26.8%) ( $P < 0.05$ ). The mortality under 60% of soil humidity was higher than that under 30% humidity ( $P < 0.01$ ). Conclusion The fermented kelp shows a strong luring effect to the *Oncomelania* snails.

Key words [Oncomelania hupensis](#); [Laminaria japonica](#); [Food attractant](#); [Molluscicide](#)

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