

Optimization of *Cordyceps militaris* in Alternative Medium and Control Medium †

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Abstract: *Cordyceps militaris* is a fungus, and it belongs to the ascomycota, and it is the chief Chinese medicinal mushroom. Cordycepin is a bioactive compound separate from the fungi called *Cordyceps militaris*. It is hard to grow in normal conditions; even the material used for growing *Cordyceps militaris* is expensive, so that I use alternative materials to reduce the price of *Cordyceps militaris*. The normal method uses brown rice as a medium, and the optimum temperature is 18c -22c. The temperature is constant, but the medium will be altered so that I use an alternative medium so my alternative medium 1.pumpkin seeds ungrounded 2.grounded pumpkin seed 3.grounded brown rice 4.brown rice (control media) We know about the control media, so we kept the controlled media as a constant and start research in alternative media. These alternative media is rich in nitrogen source and carbon source and the *C.militaris* grow well in the nitrogen and carbon source if the *c.militaris* is grown in the alternative media, then compare the control media and alternative media based on the presence of cordycepin (kind of protein present in *C.militaris*) if the percentage of cordycepin is the same or high in the alternative media will reduce the price of the *C.militaris*.

Keywords: Cordycepin; *Cordyceps militaris*; grounded brown rice; bioactive compound.

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Conflicts of Interest

The authors declare no conflict of interest.