**Title bolded, 13-point Times New Roman, centered**

**Antimicrobial Production by an Actinomycetes Isolated from the Termite Nest**

First author 1,\*, Second author(s)2, Other author1

1Author’s affiliation and full mailing address in 10-point Times New Roman, centered

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**Abstract (Bahasa Inggris)**

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**Keywords:** Provide at least 3 keywords, separated by a comma (,)

**Abstrak (Bahasa Indonesia)**

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**Introduction**

Indonesia excels in a period of 2045 prepared by the application from the map of the industrial revolution ere 4.0. answering education as a solution to the impact of the industrial era 4.0. required

**Material and Methods**

***Preparation of termite nest sample***

*Actinomycetes isolates growth*

Sample of termite nest was collected in September 2016 from Pananjung Pangandaran Nature Reserve, West Java, Indonesia. Termite nest was obtained by cruise method. The type of collected nest



Figure 1. Actinomycetes isolates growth in HV agar media

Table 1. Actinomycetes isolates growth

|  |  |  |  |
| --- | --- | --- | --- |
| No | Poin 1 | Poin 2 | Poin 3 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
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**Results and Discussion**

***Isolation of Actinomycetes from termite’s nest sample***

In this research, we using HV agar media to isolate Actinomycetes from the termite’s nest sample. Its classify into nutrient-poor media therefore not many other microorganisms are able to live and utilize nutrients available in the media other than Actinomycetes bacterial group. In the process of Actinomycetes. we found contain in soil can be detected and avoided by termites with several disease resistance mechanism. A trend in termite evo-lution of nests was observed progressively reducing contact with soil. The high incidence of entomopathogens in soil were likely involved in the evolution of the more derived nesting habits in *Nasutitermes*. Environmental factors such as moisture, temperature, and light may be attributed to characteristic of termite nesting then may lead to influence the composition of microbial communities in termite nest [41].

**Conclusion**

The strain *S. prasinopilosus* Pn-TN2 which isolated from termite nest sample, showed a broad range of antimicrobial activity against bacterial and fungal test. Result showed that this isolate possessed inhibition rate antifungal activity by 80% against *F. oxysporum*, 61% against *F. palustris*, and 62% against *T. viridae*. Advised, this isolate also

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Abstract writing in 2 languages ​​(Indonesian & English)