

The Utilization of Bintaro Fruit as a Biofungisida Exterminator Of Powdery Mildew Fungus (*Oidium sp.*) on Malang Apple Plant (*Malus sylvestris mill.*)

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ABSTRACT

The decrease in quantity and quality of apple fruit commodities is caused by the presence of powdery mildew yeast infection (*Oidium sp.*). Powdery mildew fungus lives well on its host plant, because the habitat conditions of apple plants are very good for the growth of fungi. This fungus attacks the stems, leaves, and fruits of the Apple plant, so that the resulting of Apple fruit is small. This fungal infection can also cause the growth of the Apple plant disrupted and even die. The solution taken by farmers is to use chemical fertilizers in the form of fungicides. This fertilizer negatively affects to the environment and the apples produced. Bintaro plant (*Cerbera manghas*) has the same chemical compounds as fungicides on the fruit. Chemical compounds in question are alkaloid group compounds that are repellent and antefeedan. This compound can protect plants from attacks of pests, parasites, and other plant predators. Chemical compounds in bintaro fruit will be converted to be used as nano extracts and tested on powdery mildew. This research was conducted for approximately one year, starting from January 16, 2020 - January 25, 2021 and was conducted in two places, namely in the laboratory and field. The brief of this research is the collection of research subjects and objects, the manufacture of nano extract of bintaro fruit against powdery mildew fungus on the seeds of stricken apple plants. The data collection technique used is direct observation and the results of the observation are analyzed with a single Anava followed by a BNT test.

Key words: nano bintaro fruit extract, effectiveness, powdery mildew