

UJI STABILITAS PIGMEN ANTOSIANIN BUNGATURI MERAH (*Sesbania grandiflora* (L) Pers)(Kajian Pemanasan, Cahaya dan Logam)

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ABSTRACT

Anthocyanins are a pigment type that having the character of dissolve in water, that has a blue rose colored pigment group until which spread over in crop. Most natural anthocyanins of change during depository and processing. Factors influencing stability of anthocyanins are pH, temperature, oxygen and light and also other factors like metal ion and enzyme.

Generally anthocyanins more stable in a acid condition, free media of oxygen in a condition cool temperature and condition of dark. Purpose of this research is to knowing influence of temperature and long time of heating, light and also metal to pigment stability of anthocyanins of red turi flower.

This research early with phase of extract corolla of red *Sesbania grandiflora* obtained by concentrate of anthocyanins, then it is conducted by examination of pigment stability, that is consisting of three examination where each examination use simple Randomized Complete Block Design (RCBD), by 3 restating times, examination stability of anthocyanins effect of influence of heating (500C during 60 minute, 700C during 30 minute, 1000C during 15 minute), examination of stability of anthocyanins effect of influence of lamp light (40 Watt, 60 Watt, 100 Watt) and examination of stability of anthocyanins effect of influence of metal (AlCl₃, FeCl₃).

Result of research showed that flower pigment concentrates of red *Sesbania grandiflora* have pH 2.40, and absorbance value equal to 0,169 λ at 527 nm, red level (value of a+) equal to 26,9 and after tested with heating, temperature 500C during 60 minute of degradation of absorbance of lowest, that is 30,18%, with red level (value of a+) equal to 26,73 and pH 2,167. For the test of influence of lamp light 40 Watt of degradation of absorbance the lowest value, that is 2,37%, with red level (value of a+) equal to 24,27 and pH 2,54. For the test of influence of metal of AlCl₃ natural of degradation is lower absorbance than FeCl₃, that is 22,49%, red level (value of a+) 25,57 and pH 2,663. Pigment of anthocyanins of red turi flower more stable at temperature 500C during 60 minute, with light 40 Watt, and addition of metal of AlCl₃ compared to other treatment (heating, metals and light).