

## INTISARI

Stress oksidatif terjadi jika kadar radikal bebas dan antioksidan dalam tubuh tidak seimbang. Radikal bebas dapat terbentuk akibat peningkatan kadar glukosa darah pada Diabetes Melitus yang dapat menyebabkan berbagai kerusakan sel, jaringan, dan organ seperti hati, ginjal, jantung. Antioksidan diperlukan untuk meredam dampak negative oksidan. Flavanoid pada tanaman kersen bersifat antioksidatif. Penelitian ini adalah penelitian eksperimental dengan rancangan penelitian *post test only with control group design*. Subjek penelitian ini adalah tikus putih galur *Sprague dawley* sebanyak 36 ekor yang dibagi menjadi 6 kelompok, yaitu kelompok 1 (normal), kelompok 2 (kontrol negatif), kelompok 3 (kontrol positif), kelompok 4 (seduhan daun kersen 250 mg/200 grBB), kelompok 5 (seduhan daun kersen 500 mg/200 grBB), dan kelompok 6 (seduhan daun kersen 750 mg/200 gram). Kelompok 2-6 diinduksi dengan *streptozotocin* dosis 65 mg/KgBB dan *nicotinamide* 230 mg/KgBB selama 5 hari hingga tikus menjadi Diabetes Melitus (Gula Darah Puasa >135 mg/dl) kemudian diberikan perlakuan selama 14 hari. Pengambilan kadar GDP menggunakan metode enzimatik *GOD-PAP*, sedangkan SOD menggunakan Kit BioVision. Data dianalisis menggunakan uji *paired t test* dan uji *One Way Anova*. Hasil uji statistic dengan *paired t test* menunjukkan perbedaan bermakna kadar GDP sebelum dan sesudah perlakuan ( $p=0,0001$ ). Pada uji *One Way Anova* terdapat rerata kadar SOD yang berbeda pada setiap kelompok ( $p=0,0001$ ). Seduhan yang paling efektif meningkatkan kadar SOD yaitu dosis 750 mg/200 grBB.

**Kata kunci** : stress oksidatif, kersen, Diabetes Melitus, Superoksida Dismutase.

## ABSTRACT

*Oxidative stress occurs when the levels of free radicals and antioxidants in the body is not balanced. Free radicals can be formed as a result of an increase in blood glucose levels in Diabetes Mellitus that can cause damage to cells, tissues, and organs such as the liver, kidneys, heart. Antioxidants are necessary to dampen the negative effects of oxidants. Flavonoids on the cherry crop is antioxidative. This research is experimental research design with post test with only control group design. The subjects were white rats Sprague dawley many as 36 tails were divided into 6 groups: group 1 (normal), group 2 (negative control), group 3 (positive control), group 4 (steeping leaves of cherry 250 mg/200 grBW), a group of 5 (cherry leaves steeping 500 mg/200 grBW), and group 6 (cherry leaves steeping 750 mg/200 grBW). 2-6 group induced with streptozotocin dose of 65 mg/KgBW and nicotinamide 230 mg/KgBW for 5 days until the rats became Diabetes Mellitus (fasting blood sugar >135mg / dl) were then given treatment for 14 days. Intake levels of GDP using enzymatic method GOD-PAP, while SOD using Kit BioVision. Data were analyzed using paired t test and One Way Anova. The results of statistical tests with paired t test showed significant differences in the levels of GDP before and after treatment ( $p = 0.0001$ ). In One Way Anova mean SOD are different in each group ( $p = 0.0001$ ). The most effective steeping increase SOD is the dose of 750 mg/200 grBW.*

**Keywords:** *oxidative stress, cherry, Diabetes Mellitus, Superoxide Dismutase.*