

PENGARUH MUSIM DAN BAGIAN TANAMAN TERHADAP KOMPOSISI KIMIA DAN KANDUNGAN ASAM OKSALAT RUMPUT *Brachiaria decumbens*

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INTISARI

Penelitian ini bertujuan untuk mengetahui kandungan asam oksalat dan komposisi kimia *Brachiaria decumbens*, yang dianalisis pada dua musim yang berbeda yaitu musim kemarau dan musim penghujan, serta bagian tanaman yang meliputi daun dan batang. Pengambilan sampel rumput *Brachiaria decumbens* diambil secara acak dari kebun penelitian Laboratorium Hijauan Makanan Ternak dan Pastura Fakultas Peternakan Universitas Gadjah Mada Yogyakarta, kemudian sampel dikomposit. Analisis komposisi kimia pakan dilakukan dengan analisis proksimat, sedangkan kandungan asam oksalat dianalisis dengan menggunakan *High Performance Liquid Chromatography* (HPLC). Data yang diperoleh dianalisis faktorial 2x2 dilanjutkan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa bagian batang *Brachiaria decumbens*, memiliki nilai protein kasar yang lebih tinggi (8,37%) dibandingkan pada bagian batang (4,02%) ($P < 0,05$). Oksalat pada perbedaan musim dan bagian tanaman signifikan. Berdasarkan penelitian dapat disimpulkan bahwa kandungan asam oksalat pada musim kemarau lebih tinggi (2,06%) dibandingkan pada musim penghujan (0,59) ($P < 0,05$), demikian juga pada bagian daun kandungan oksalat lebih tinggi (2,07%) dibandingkan pada bagian batang (0,58%) ($P < 0,05$). Berdasarkan penelitian dapat disimpulkan bahwa musim berpengaruh pada kandungan asam oksalat rumput *Brachiaria decumbens*, sedangkan bagian tanaman mempengaruhi kandungan komposisi kimia dan asam oksalat.

Kata kunci : Asam oksalat, *Brachiaria decumbens*, Komposisi kimia, Musim, Bagian tanaman

**EFFECT OF SEASON AND PLANT SECTIONS ON CHEMICAL
COMPOSITION AND OXALATE ACID CONTAIN OF
Brachiaria decumbens GRASS**

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ABSTRACT

The aims of this study were to determine the contain of oxalate acid and chemical composition of *Brachiaria decumbens*, which were analyzed in different seasons that were dry season and rainy season, plants sections included the leaves and stems. *Brachiaria decumbens* sampling was taken randomly from the garden of Forage and Pasture Laboratory, Faculty of Animal Science, Universitas Gadjah Mada Yogyakarta, then the samples were composite into one. The samples were analyzed by proximate analysis, whereas the oxalate acid contains were analyzed using *High Performance Liquid Chromatography* (HPLC). Data were analyzed using analysis of various for completely randomized of factorial model (2x2) and the difference between means was analyzed using Duncan's Multiple Range Test (DMRT). The result showed that the stem of *Brachiaria decumbens* has higher crude protein (8.37%) than the leave (4.02%) ($P < 0.05$). The oxalate acid was significant on the different season. Based on the study, it can be concluded that the contain of oxalate acid in dry season was higher (2.08%) than in rainy season (0.59%) ($P < 0.05$). However, the contain of oxalate acid in leaves was higher (2.07%) than the stem (0.58%) ($P < 0.05$). Based on the study, it can be concluded that the different seasons may affect the contain of oxalate acid in *Brachiaria decumbens*. However, the different parts of plant may affect the chemical composition and oxalate acid

Keywords: Oxalate acid, *Brachiaria decumbens*, Chemical composition, Season, Section of plants.