

Vitamin C, Chlorophyll Content and Total Phenolic Compounds in *Artemisia lactiflora* as Affected by Different Organic Fertilizers

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ABSTRACT

*The objectives of this current study were to determine the varying contents of vitamin C, chlorophyll, total phenolic compounds in White mugwort (*Artemisia lactiflora*) which were tested under different types of organic fertilizer. Completely randomized design with four treatments (applications of no fertilizer, cow, chicken and bat manures) was assigned for the field experiments at Department of Medicinal Plant Science, Faculty of Agricultural Production, Maejo University in Chiang Mai, Thailand. The results showed that the sampled plants with chicken manure application yielded the highest fresh (31.00 ± 1.00 g FW/plant) and dried weights (3.20 ± 0.20 g DW/plant). Furthermore, plants with chicken manure treatment also gave the highest chlorophyll content of 0.93 mg/g FW. Whereas, the highest levels of vitamin C (1.35 mg/100g FW) and total phenolic compounds (4.84 mgGAE/g DW) were found in plants with cow manure treatment.*

Keywords: *Artemisia Lactiflora*, Organic fertilizer, Total phenolic compounds, Vitamin C

INTRODUCTION

Thai herbs have been used in traditional medicine in Thailand for many centuries. They are widely known for being dietary supplements and important sources of antioxidants (Hafizah et al., 2010; Hunaefi and Smetanska, 2013; Almatar et al., 2014). Health benefits of Thai herbs have been reported for