

## Valuation of Glyphosate in Tea Sector of Uva Region in Sri Lanka

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Banning of Glyphosate without providing any alternative, parallel chemical method to manage the weeds, has left the tea industry vulnerable for increasing cost of production (COP). This is because planters have to mainly depend on manual weeding which incurs a high cost. The aim of this study is to find out the value of Glyphosate per square meter ( $m^2$ ) taking the area of Thelbedda and Ury estates in Uva region into account and apply it to determine the total value of Glyphosate for the entire tea sector in Uva region of Sri Lanka. We applied 'Benefit Transfer' as the valuation technique and evaluated Ury and Thelbedda estates in Uva region. We obtained annual cost of manual weed management and annual yield in the years 2016 & 2017. For the valuation, we assumed that the effects from climatic factors on weed management and yield is negligible, wage rate as well as weed growth rate is constant and effect of Glyphosate lasts till the end of the year 2015. Value of Glyphosate was determined by deducting the cost of manual weeding for the year 2016 from 2017. Values of Glyphosate per square meter of Thelbedda and Ury estates are Rs. 0.95 and Rs. 1.95 respectively. The value of Glyphosate for the entire tea sector of Uva region was determined by multiplying the average by the extent of tea sector ( $281,330,000 m^2$ ) in the Uva region and that is Rs. 407,726,059.90. Accordingly, the value of Glyphosate calculated depicts the worth of Glyphosate to the entire tea sector in Uva region under the valuation method of benefit transfer. The manual weeding cost has a significant increment in the following two years since the banning of Glyphosate application in 2015. The yield too has shown a drastic decline. Since an alternative herbicide has not yet been introduced the demand for labour has increased for manual weeding and so the cost. So Glyphosate is a crucial factor that affects the tea industry in terms of profit.

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