

Table 14 Vegetation Structure (Foliar Chemistry)

| | DATA OPTION 1: Airborne hyper-spectral data |
|---|---|
| <i>Spatial Dimensions</i> | |
| Area to cover | Up to 1000 km ² |
| Mapping unit | 0.5m – 5m |
| Positional accuracy | Dependent on Geo-referencing process |
| <i>Temporal Dimensions</i> | |
| When | User defined |
| How often | User defined (can be < 1 day) |
| Variable to map | Concentration (per unit area) of foliar chemicals (Chlorophylls, carotenoids, lignin, water etc.) |
| Environmental Restrictions | Cloud cover |
| Processing technique (Output) | Empirical or deterministic models (Map of Concentration (per unit area) of foliar chemicals) |
| Resources – Hardware and Software | PC Image processing software |
| Resource – Personnel | Trained in hyper-spectral data processing. Knowledge of area to be mapped |
| References: Note these are some example references | Wessman et al. (1988) |

Wessman, C. A., Aber, J. D., Peterson, D. L. and Melillo, J. M. (1988). "Remote sensing of canopy chemistry and nitrogen cycling in temperate forest ecosystems." *Nature*, 335(6186), 154-156.