

DETERMINATION OF CANNABIDIOL IN VARIOUS FLOWER BUDS USING LIQUID CHROMATOGRAPHY – MASS SPECTROMETRY. **Nicole Hanna**, Kingsley Donkor, Thompson Rivers University, Department of Physical Sciences (Chemistry), 805 TRU Way, Kamloops, B.C., V2C 0C8, Canada.

Due to recent legalization, consumption of cannabis products has increased, and can be dangerous for some if not labelled accurately. This research was conducted in order to determine the amount of cannabidiol (CBD) present in four cannabis flower bud samples with varying CBD concentrations: *Blue Iguana*, *Wappa*, *Mandarin Cookies* and *Miracle 15 x Alien Cookies*. Concentrations were determined using liquid chromatography - mass spectrometry (LC-MS). Prior to LC-MS analysis, CBD was extracted from the flower bud samples using methanol, and pre-concentrated by nitrogen evaporation. CBD was detected in higher quantities than labelled in 2 out of the 4 samples. The concentration of CBD present for *Blue Iguana* was 0.3450 ± 0.0618 mg/g; *Wappa* was 0.35501 ± 0.0445 mg/g; *Mandarin Cookies* was 0.0104 ± 0.0258 mg/g; *Miracle 15 x Alien Cookies* was 0.0941 ± 0.0243 mg/g. The precision of this study was acceptable with percent relative standard deviation ranging from 2.34% to 17.92%. The average percent recovery for cannabidiol was 80% for cannabis flower bud samples (n=4).