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A Review of Fungi Recovered from 3 Different Sources of Cannabis Flower

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Abstract: In a fast-growing industry where regulatory compliance is becoming increasingly standardized, cannabis and hemp industries are searching for enhanced quality and safety solutions. In order to put in place the proper mitigation and safety processes it is important to first understand the microbial flora inherent to the product. 30 cannabis flower samples were provided from 3 different sources. Fungi were recovered from each of the flower samples and fungi were identified via Mass Spec or Whole Metagenome Sequencing (WMS). *Penicillium citrinum* was the most commonly found mold (78%) and was isolated in a total of 23 samples and predominantly in pure culture. Mixed samples mostly contained other species of *Penicillium* but *Fusarium oxysporum*, *Aureobasidium pullulans* and *Cladosporidium cladosporoides* were also recovered from some of the flower samples. *Aspergillus* sp. is currently the only regulated mold for Cannabis and for this study was isolated in only 3 samples. Understanding the source of these molds might provide insight into implementing stronger safety measures to reduce further the potential presence of *Aspergillus* sp.