



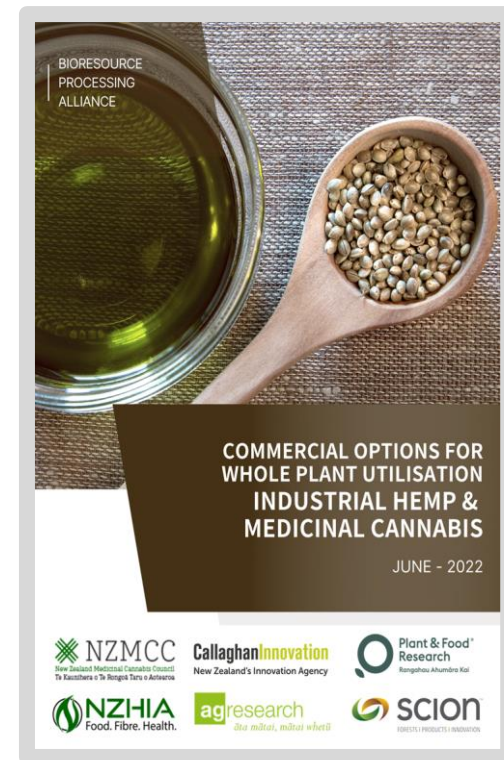
WHOLE PLANT UTILISATION



GOALS AND OBJECTIVES

Provide the industry with guidance to help identify and evaluate potential commercial options for bioresources obtained from hemp or cannabis beyond their primary use

- BPA partner and industry stakeholder engagement
- Industry-led priorities for commercial evaluation of hemp/cannabis biomass opportunities
- Enabling industry-researcher collaborations to undertake research projects for identified commercial options



OPTIONS
SUMMARY BY
BY-PRODUCT

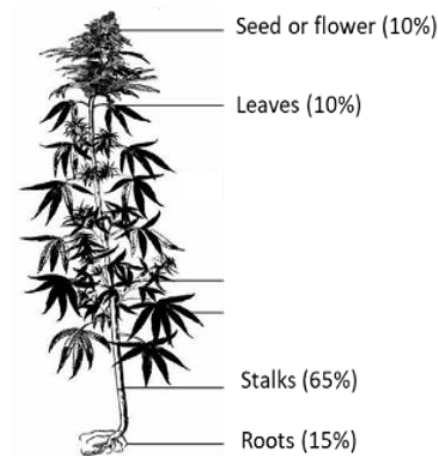


THE OPPORTUNITY

- Up to 6,000 tonnes/year of dry biomass generated from industrial hemp production¹
- 2.58 tonnes/year from medicinal cannabis production²
- Expected to rise rapidly over the next few years
- Biomass represents a significant proportion of the plant. Currently composted or otherwise disposed of, with options limited by existing regulations

[1] Annual industrial hemp production estimated to be 5,880 - 7,225 tonnes of dry biomass of which 79-83% is predicted to end up as waste.

[2] For medicinal cannabis, current annual production is estimated at 3 tonnes of dry biomass, of which approximately 86% is predicted to be waste



Cannabis/hemp plant sections as percentage of dry biomass



BY TAKING A WIDE LENS ON HEMP AND MEDICINAL CANNABIS SECTORS THAT ENCOURAGES GREATER COLLABORATION, AS WELL AS BETWEEN REGULATORS AND THE WIDER INDUSTRY, WE BELIEVE WE WILL BE WELL POSITIONED TO DELIVER COMMERCIAL VALUE THROUGH WHOLE PLANT UTILISATION.

BY-PRODUCT OPTIONS SUMMARY

Summary of options covering the areas of research, required technology and innovation, as well as potential products and markets

- Options here have not been limited only to those allowable through current regulations for medicinal cannabis or industrial hemp in New Zealand
- Recommend any future regulatory changes consider the plant as a whole and allow for better overall utilisation
- Put New Zealand in a strong position to maximise the profitability of medicinal cannabis and industrial hemp in global niche markets.

