# Underutilized Biological Resources in Japan: *Cannabis sativa*Salvatore Martone(筑波大学 生物学類) 指導教員:渡邉 和男(筑波大学 生命環境系)

### Introduction

The globally common plant *Cannabis sativa*, which originates in east Asia, has numerous biologically significant uses however due to its controversial legal status it has become an underutilized biological resource, especially in Japan. *Cannabis sativa*, also known as Hemp or Industrial Hemp has numerous valuable and practical uses, ranging from hemp-based foods, health products, cosmetics, biofuels, and cannabidiol (CBD).

# Material & Methods

Standard BIA and SWOT models were used in this assessment to determine the market potential of cannabis sativa in Japan. Additionally, assessments based upon local and national laws were used to better understand feasibility of implementing a domestic based business plan with accordance to public perception and ethical hurdles.

# Discussion

Japan has a long history of cannabis cultivation, and now the cultivation is limited under a licensing system. In Japan, hemp production is legal, and its products will not be regulated if they meet the following conditions: 1) products are THC-free (tetrahydrocannabinol), 2) products can only be made from cannabis seeds or mature stems and not from the flower of the cannabis plant, provable via testing.

Currently Japan's Hemp products are mainly imported, mostly in the areas of cosmetics, dietary supplements, health products, pet snacks and CBD products. According to Prohibition Partners, the Japanese cannabis market will reach \$2,057.7 million by 2024. The Japanese consumer believes strongly in using plant-derived health care products, which explains why CBD and hemp-based products have gained substantial market-share year on end. However, due to the shortage of domestic cultivation production, hemp products in Japan are fully imported or are made with imported material.

#### Conclusion

Japan has a long history of cannabis cultivation, and now the cultivation is limited under a licensing system. In Japan, hemp production is legal, and its products will not be regulated if they meet the following conditions: 1) products are THC-free (tetrahydrocannabinol), 2) products can only be made from cannabis seeds or mature stems and not from the flower of the cannabis plant, provable via testing.

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