



Moisture Content and Water Activity in Cannabis Plants Mindy Mendyka Lake Superior State University

Conclusion

Stage of Production	Percentage Standard	Type of Product	Percentage Standard
Initial Drying	14-15%	Pleasant Smoke	10-12%
Vape Products	12-15%	Harsh/Dry Smoke	10% or less
After Curing	11-12%	Medicinal Products	6-9%

Table 2: Required water content percentage standards.

Stages of production and different products require certain water content percentages

- Environmental strain
- Over watering/wet environments will drown the plants
- Underwatering/dry environments will result in wilting or poor growth of the plant, especially over time
- Humidity
- Helps balance evaporation
- Lower humidity levels result in more nutrients and water absorbed by the plant

Many industries perform moisture analysis tests

- Dentistry: used to determine brittleness of teeth
- GIS: used to determine soil moisture
- Pharmaceuticals: used to determine water content of medications

Medicinal cannabis undergoes gamma irradiation to ensure there are no microorganisms that may be present due to excess moisture

Process decays Cobalt 60 to produce gamma rays

Attempt to see if industrial hemp could be used to replace soy in food products¹

- Study focused on what extent hemp proteins could be used in place of high moisture meat analogues
- A twin screw co-rotating extruder was used to break down the hemp
- Water percentages affected texture of food
- Higher water percentages in the cannabis plants resulted in a less chewy product

The method of moisture analysis is more dependent on size of production

Keep consumers safe

References

¹ Zahari I, Ferawati F, Helstad A, Ahlström C, Östbring K, Rayner M, Purhagen JK. Development of High-Moisture Meat Analogues with Hemp and Soy Protein Using Extrusion Cooking. Foods. 2020 Jun 11;9(6):772. doi: 10.3390/foods9060772. PMID: 32545255; PMCID: PMC7353622. (accessed Feb 5, 2021).

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