

CANNABIS EDIBLES: WHEN TO USE PECTIN OR GELATIN

Gummies are the leading choice of product in the edible cannabis market for both Canada and the USA. The gummy edible category is driven by consumers who want discretion, precise dosing and fun flavours. This category is seeing many new edible brands entering the market. When developing and introducing an edible gummy to the market, companies must be cognizant of the technical aspects of launching these products in addition to the regulatory aspects surrounding the product category, such as ensuring products are shelf-stable products that do not require refrigeration. One aspect that is crucial to the development of gummies is the selection of a gelling agent. The two main ingredients that perform that function are pectin and gelatin.

Factor	Pectin	Gelatin
Ingredient Origin	<ul style="list-style-type: none"> Plant-based: typically from citrus peels and apple pomace Suitable for those with vegan or vegetarian dietary restrictions Polysaccharide from cell wall Commonly used in jams and jelly making 	<ul style="list-style-type: none"> Animal-based: derived from a variety of collagen sources, pork being the most common Made from the skin, bones and connective tissue Tasteless and odorless protein
Sensory	<ul style="list-style-type: none"> Texture produced is softer, chewy and jelly-like Quicker release of flavour Translucent gel 	<ul style="list-style-type: none"> Texture is found to be firm and elastic Often described as the classic gel, typical of gummy confections Produces clearer, more transparent product with bright colour delivery
Costing	<ul style="list-style-type: none"> Typically, five times more expensive Usage rate of around 1% 	<ul style="list-style-type: none"> Typically, cheaper Usage rate of 6-9%
Processing Conditions	<ul style="list-style-type: none"> Sugar and acid are required to form a gel Fast-setting gel within 30 minutes Curing or drying is required to equilibrate the moisture content to ensure a shelf-stable product 	<ul style="list-style-type: none"> Gel is less sensitive to sugar and acid variations Gel formation can take 2 to 6 hours Curing or drying is required to stabilize the moisture content to ensure a shelf-stable product
Final Gel	<ul style="list-style-type: none"> Gel is not thermos-reversible, so it cannot be reworked by melting Gel is more temperature stable and not prone to melting Known as a more challenging product to produce 	<ul style="list-style-type: none"> Forms a thermo-reversible gel which can be melted down and reformed Prone to melting, which may require refrigeration storage in hot climates—however, pectin can be added to reduce melting.

To create gummies with gelatin or pectin, different manufacturing equipment would be needed along with necessary testing equipment such as a pH meter, refractometer (for °Brix) and water activity (Aw) meter.

REFERENCES:

- (n.d.). Pectin vs. Gelatin: What is in Your Gummy. LivWell. <https://blog.livwell.com/pectin-vs-gelatin-what-is-in-your-gummy/>
- (n.d.). The Future for Edibles in Canada: Gummies, Drinks and Regulatory Changes. Techpos. <https://techpos.ca/articles/the-future-for-edibles-in-canada-gummies-drinks/>
- (2022, October 28). Cannabis Edibles: An analysis of category trends & performance. Headset. <https://www.headset.io/industry-reports/cannabis-edibles-an-analysis-of-category-trends-performance>
- (n.d.). Should Gummy Manufacturers use Gelatin or Pectin? AIPAK. <https://www.icapsulepack.com/should-gummy-manufacturers-use-gelatin-or-pectin/>
- (2022, April 14). Is pectin or gelatin the right gelling agent for your cannabis gummies. MJBizDaily. <https://mjbizdaily.com/is-pectin-or-gelatin-the-right-gelling-agent-for-your-cannabis-gummies/>
- (2022, May 20). Pectic vs. Gelatin: What is in Your CBD Gummies? CBD Market. <https://cbd.market/cbdblog/pectin-vs-gelatin-your-cbd-gummies>
- (n.d.). A Beginner's Guide to Choosing Gummy Bear Machine. ISweetech. <https://www.isweetech.com/gummy-bear-machine-guide/>