Improving Cannabis Risk Management Tools Using Business Transaction Data

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Washington's cannabis industry is new

Voters in WA legalized recreational cannabis at the state level in 2012 (second state to do so)

Cannabis is still not legal at the federal level

Liquor and Cannabis Board regulates the new industry

- Administers licenses

- Enforces laws and creates rules

- Collects excise tax

Why audit cannabis?

- Newly created cannabis industry in Washington

- Large industry. Nearly $500 million in excise taxes per biennium, and expected to grow

- No existing cannabis regulatory model

- No cannabis "off the shelf" data tracking system

- Limited regulatory resources

- LCB welcomed our help

Summary of the audit

Our audit questions

Q1: What data could help identify high-risk cannabis business transactions?

Q2: How can LCB use cannabis licensee tracking data to focus its audit and enforcement efforts on high-risk transactions?

What we did

- Mapped cannabis processes in our state

- Identified high-risk transaction points in the processes we mapped

- Assessed how LCB could use existing data to alert regulators of unusual data at those high-risk points

LCB should develop tools to flag unusual data at process points with particularly high risk of product diversion

Question 1

*What data could help identify
high-risk cannabis business transactions?*

Three types of licensees enter data into a tracking system

Producers
- Grow and harvest plants
- Dry and cure plant material
- Bundle material for processing or sale

Processors
- Convert plant material to intermediate products
- Convert intermediate products to end products
- Package products for retail sale
- Create samples

Retailers
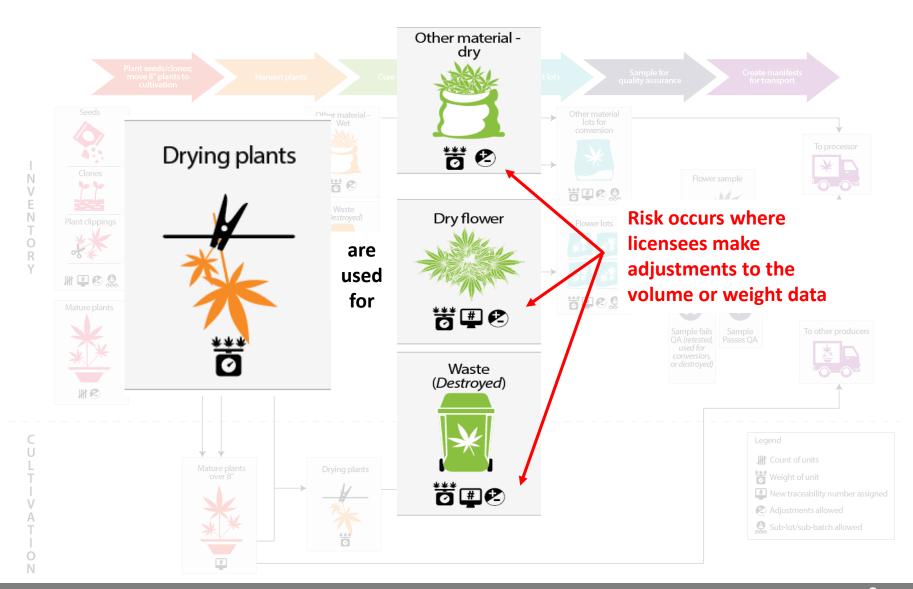- Sell end products
- Collect and pay taxes

Higher likelihood of product **diversion** — where cannabis products are removed from the regulated market for unlawful reasons
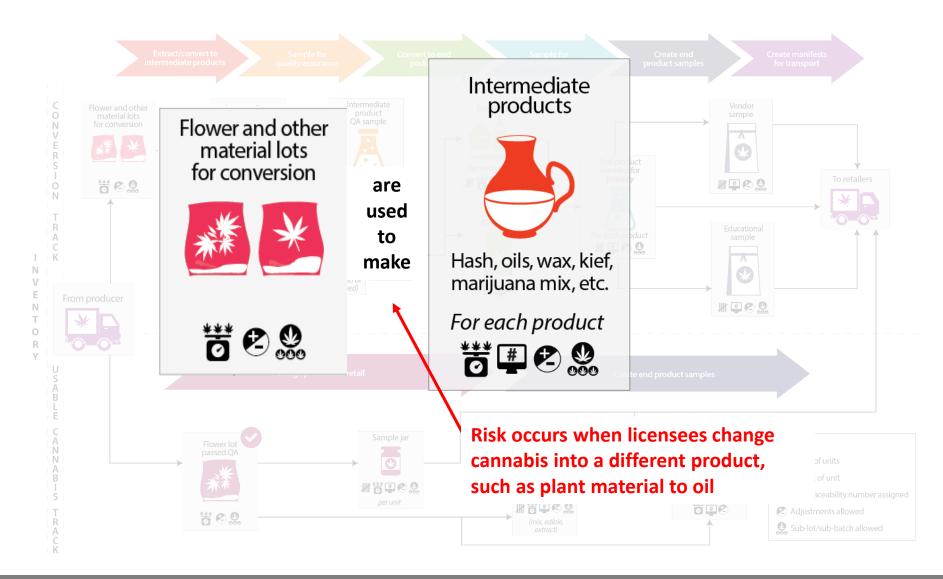
High-risk transactions occur where licensees:

- Change the form of cannabis

- Transfer cannabis to another licensee or customer

- Adjust quantities or weight in the tracking system

Production map showing adjustment example

Flower and other material lots for conversion *are used to make* **Intermediate products**

Hash, oils, wax, kief, marijuana mix, etc.

For each product

Risk occurs when licensees change cannabis into a different product, such as plant material to oil

are sold or given as samples

Some risk occurs when licensees transfer product to customers, employees or other licensees

Question 2

How can LCB use cannabis licensee tracking data to focus its audit and enforcement efforts on high-risk transactions?

LCB's original tracking system did not identify unusual data

- Enforcement actions primarily driven by complaints

- Staff reviewed data by manually generating reports

LCB contracted with a new vendor to implement a new tracking system that will:

- Be more flexible

- Have better analytic capabilities

- Be able to alert regulators when licensees enter unusual data

Looking at the data it collects, LCB could determine ranges of values it considers reasonable for each transaction

- Any value outside that range would be considered unusual

LCB then could set up automatic notifications triggered by data outside those ranges at high-risk process points, where cannabis:

- Changes form
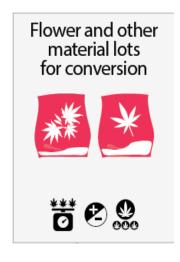
- Changes hands

- Is adjusted

Finally, LCB could optimize staff resources by focusing its audit and enforcement efforts where those unusual data occur

What are reasonable data ranges?

Values for a particular transaction that are typical and make sense

Example: Cannabis changing form
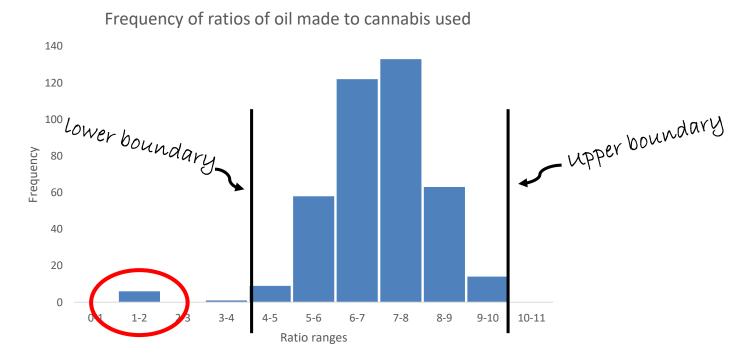
Conversion of plant material to an oil extract

How to determine reasonable ranges

1. Look at the data

2. Determine upper and lower boundaries of reasonable range using:

   ▪ Standard statistical methods

   ▪ Professional judgment and knowledge of the industry

Frequency of ratios of oil made to cannabis used

LCB could build **automatic notifications** to flag data that are outside reasonable ranges

For example, when the ratio of oil created to cannabis used is outside the determined cutoffs

LCB could review flagged transactions or licensees and decide if it needs to **follow up**

If so, it could send audit or enforcement staff to investigate

We recommend LCB…

- Develop reasonable data ranges for high-risk transactions

- Establish automatic notifications for data outside those ranges

- Focus enforcement and audit efforts when notifications occur

LCB management said in its formal response to the audit report that it expects to implement these recommendations by the end of the year.

Questions?

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