

# Still Magic

A **gin distiller's guide** for beginners

Audiobook Companion PDF



MARCEL THOMPSON



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Table 1

**Botanical listings**

<i>Common name</i>	<i>Botanical name</i>	<i>Easy description</i>
Angelica root	Archangelica officinalis	Rooty
Aniseed	Pimpinella anisum	Nutty/Spiced
Bitter orange peel	Citrus aurantium	Citrusy
Calamus	Acorus calamus	Spiced
Caraway	Carum carvi	Grassy
Cardamom	Elettaria cardamomum	Spiced
Cassia	Cinnamomum cassia	Spiced
Cinnamon	Cinnamonum zeylanicum	Spiced
Coriander seed	Coriandrum sativum	Spiced/Citrus
Cubeb berries	Piper cubeb	Spiced/Rooty
Fennel seed	Foeniculum vulgare	Grassy/Herbal
Grains of Paradise	Afromomum melegueta	Spiced/Rooty
Juniper berries	Juniperis communis	Herbal
Lemon peel	Citrus limon	Citrusy
Liquorice root	Glycyrrhiza glabra	Sweet
Nutmeg	Myristica fragrans	Nutty
Orris root	Iris pallida	Rooty
Sweet navel orange peel	Citrus sinensis	Citrusy



Figure 1





Table 2

THE BUILDING BLOCKS OF GIN

Their names describe their aroma to some extent:

- Limonene – a citrus aroma
- Alpha Pinene – a pine tree aroma
- Linalool – floral with some spiciness

Over the years, additional research into this berry has uncovered other fabulous compounds that describe its characteristics and, by extension, the nature of all gin aromas and flavours.<sup>3</sup>

**Compounds**

<i>Compound</i>	<i>Flavour/Aroma Description</i>
alpha pinene	piney
limonene	citrus
borneol, camphene, terpinene, cadinene	woodiness
cineole	mint
terpin-4-ol	nutmeg
caryophyllene	spiciness



Figure 2

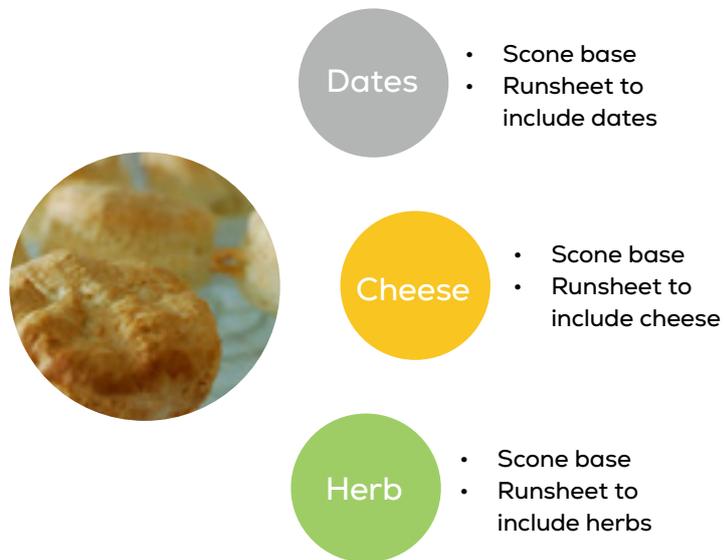


Figure 3





Table 3

***What worked?***

---

**What worked?**

**What didn't work?**

---

**What shall I keep doing?**

**What shall I stop doing?**

---

Figure 4





Table 4

***Magic ratios***

	<i>Juniper</i>	<i>Coriander</i>	<i>Angelica</i>	<i>Cardamom</i>	<i>Citrus</i>
<i>Juniper</i>	1				
<i>Coriander</i>		1			
<i>Angelica</i>			1		
<i>Cardamom</i>				1	
<i>Citrus</i>					1



Table 5

**Gin bases and botanical listings**

<i>To make 200ml of Gin</i>	<i>Botanical</i>	<i>Base I</i>	<i>Base II</i>	<i>Base III</i>	<i>Base IV</i>	<i>Base V</i>
Base Groupings	Juniper (grams)	10.0	12.0	9.0	5.0	10.0
	Coriander (grams)	4.0	3.0	4.0	5.0	5.0
	Angelica (grams)			1.0		2.0
	Green Cardamom pods uncrushed (grams)				8.0	
	Green Cardamom pods crushed (grams)					1.0
	Bitter orange (grams)					
	Grapefruit pieces					6.0
	Lemon rind (grams)		3.0	1.0	1.0	
	Lemon pieces		3.0			3.0
	Limes (grams)					
Bass Notes	Orange strips	1.0	3.0	1.0	1.0	6.0
	Liquorice Root sticks			1.0	1.0	
	Orris root (grams)					
	Cassia (grams)					1.0
Treble Notes	Fennel (grams)		1.0			1.0
	Allspice (grams)	2.0	1.0			
	Bay leaf (no. of leaves)	1.0				
	Cloves (grams)		2.0			2.0
	Grains of paradise (grams)					
	Peppercorns (grams)	1.0				
	Rosemary sprig					



Table 6

**Magic ratio table for Base III**

	<i>Juniper</i>	<i>Coriander</i>	<i>Angelica</i>	<i>Cardamom</i>	<i>Citrus</i>
<i>Juniper</i>	-	4/9	1/9	-	2/9
<i>Coriander</i>	9/4	-	1/4	-	2/4
<i>Angelica</i>	9/1	4/1	-	-	2/1
<i>Cardamom</i>	-	-	-	-	-
<i>Citrus</i>	9/2	4/2	1/2	-	-

Table 7

**Implications**

<i>Implications for:</i>	<i>Sweet</i>	<i>Pomelo</i>	<i>Grapefruit</i>	<i>Limes</i>
Cost				
Quality				
Reliable supply				
Time to supply				
Freight cost				
Insurances				
Storage				
Risk of spoilage				
Reputation				



Figure 5



Decide, investigate, sample, test, improve and launch



Table 8

**Martinis**

<i>Martini name</i>	<i>Parts Gin</i>	<i>Parts Dry Vermouth</i>	<i>Parts Sweet Vermouth</i>	<i>Parts 'other'</i>	<i>Garnish</i>
Dry Martini	6	1	-	-	Seedless olive
Dirty Martini <sup>17</sup>	5	1	-	1 part olive brine	Seedless olive
Perfect Martini <sup>18</sup>	6	½	½		Seedless olive
Montgomery <sup>19</sup>	8	½	-	dash orange bitters	Orange zest



Figure 6

What is the best Launch decision for me right now ?

WHAT IS THE BEST LAUNCH DECISION FOR ME RIGHT NOW ?	
OPTIONS	Friends & Family - Hobby
	Joint Venture
Solo - Hobby	Solopreneur
COMMERCIAL LAUNCH	
No	Yes



Table 9

**Botanical base II, X1 and X2**

<i>Botanical</i>	<i>Base II</i>	<i>X1</i>	<i>X2</i>
Juniper (grams)	<b>12.0</b>	12.0	12.0
Coriander (grams)	<b>3.0</b>	3.0	3.0
Lemon rind (grams)	<b>3.0</b>		
Lemon pieces	<b>3.0</b>	3.0	3.0
Orange strips	<b>3.0</b>	3.0	3.0
Liquorice Root sticks			1.0
Cassia (grams)		1.0	1.0
Fennel (grams)	<b>1.0</b>	1.0	1.0
Allspice (grams)	<b>1.0</b>	1.0	1.0
Cloves (grams)	<b>2.0</b>	2.0	2.0
Changes applied		No lemon	Add liquorice



Table 10

***Botanical bases II, X3, X4 and X5***

<b><i>Botanical</i></b>	<b><i>Base II</i></b>	<b><i>X3</i></b>	<b><i>X4</i></b>	<b><i>X5</i></b>
Juniper (grams)	<b>12.0</b>	12.0	12.0	12.0
Coriander (grams)	<b>3.0</b>	3.0	3.0	3.0
Lemon rind (grams)	<b>3.0</b>			
Lemon pieces	<b>3.0</b>	1.5	1.5	1.5
Orange strips	<b>3.0</b>	3.0	3.0	3.0
Liquorice Root sticks		1.0	1.0	1.0
Cassia (grams)		1.0	1.0	1.0
Fennel (grams)	<b>1.0</b>	1.0	1.0	1.0
Allspice (grams)	<b>1.0</b>	1.0		
Cloves (grams)	<b>2.0</b>	2.0	2.0	
Changes applied		½ lemon	No allspice	No cloves



Table 11

<i>Time, temperature and comments</i>		
<i>Time</i>	<i>Temperature (Celsius)</i>	<i>Comments</i>
18:26	25.0	Nothing to add
18:27	35.0	Heating mantle reduced from 5 to 3
18:28	65.0	Some lag before heat drops off
18:29	70.0	Some lag before heat drops off No leaks, cooling water flow OK
18:31	75.0	Some lag before heat drops off
18:48	77.0	Initial fraction, approx. 200 drips per minute
18:51	78.0	Start collecting distillate fraction
18:56	79.0	Taste test - OK (4 parts water, 1 part distillate)
19:00	80.0	Taste test - OK (4 parts water, 1 part distillate)
19:05	81.0	Taste test - OK (4 parts water, 1 part distillate)
19:10	82.0	Taste test - OK (4 parts water, 1 part distillate)
19:12	84.0	Flow rate starting to slow, aroma sharper
19:15	86.0	Aroma sharp, taste test poor Distillate collected still OK Stop collecting distillate Final temperature 90° Celsius



Table 12

**Guide to botanicals**

<i>Grouping</i>	<i>Characteristic</i>	<i>Botanical</i>
Citrus Botanicals	Acid	Grapefruit
Citrus Botanicals	Acid	Lemon
Citrus Botanicals	Acid	Lime
Citrus Botanicals	Sweet	Navel oranges
Citrus Botanicals	Sweet	Tangelos
Floral Botanicals	Aromatic	Elderflower
Floral Botanicals	Fresh	Lavender
Floral Botanicals	Perfumed	Roses
Floral Botanicals	Perfumed	Violets
Fruit Botanicals	Fruity	Apples
Fruit Botanicals	Fleshy	Apricots
Fruit Botanicals	Red	Cherries
Fruit Botanicals	Fruity	Cucumbers
Fruit Botanicals	Fruity	Grapes
Fruit Botanicals	Fleshy	Mangoes
Fruit Botanicals	Fleshy	Peaches
Herbal Botanicals	Tasty	Fennel
Herbal Botanicals	Fresh	Mint
Herbal Botanicals	Fragrant	Rosemary
Herbal Botanicals	Fragrant	Sage
Herbal Botanicals	Fragrant	Thyme
Nutty Botanicals	Fragrant	Almonds
Nutty Botanicals	Woody	Chestnuts
Nutty Botanicals	Fragrant	Hazelnuts
Nutty Botanicals	Fragrant	Macadamias
Nutty Botanicals	Woody	Walnuts
Spicy Botanicals	Musky	Coriander
Spicy Botanicals	Fiery	Cubeb
Spicy Botanicals	Musky	Ginger
Spicy Botanicals	Fiery	Grains of paradise
Woody Botanicals	Dirty	Angelica root
Woody Botanicals	Warm	Cassia
Woody Botanicals	Warm	Orris



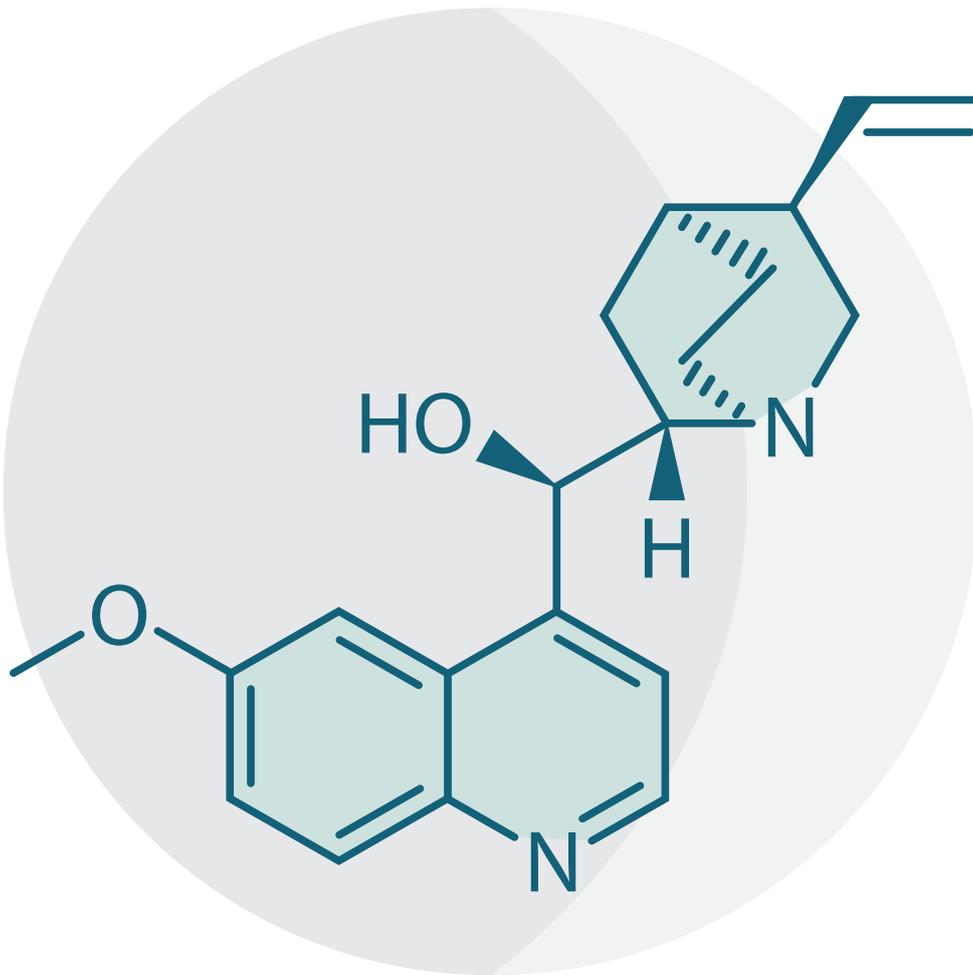
Table 13

**Botanical characteristics and groupings**

<i>Botanical</i>	<i>Characteristic</i>	<i>Grouping</i>
Almonds	Fragrant	Nutty Botanicals
Angelica root	Dirty	Woody Botanicals
Apples	Fruity	Fruit Botanicals
Apricots	Fleshy	Fruit Botanicals
Cassia	Warm	Woody Botanicals
Cherries	Red	Fruit Botanicals
Chestnuts	Woody	Nutty Botanicals
Coriander	Musky	Spicy Botanicals
Cubeb	Fiery	Spicy Botanicals
Cucumbers	Fruity	Fruit Botanicals
Elderflower	Aromatic	Floral Botanicals
Fennel	Tasty	Herbal Botanicals
Ginger	Musky	Spicy Botanicals
Grains of paradise	Fiery	Spicy Botanicals
Grapefruit	Acid	Citrus Botanicals
Grapes	Fruity	Fruit Botanicals
Hazelnuts	Fragrant	Nutty Botanicals
Lavender	Fresh	Floral Botanicals
Lemon	Acid	Citrus Botanicals
Lime	Acid	Citrus Botanicals
Macadamias	Fragrant	Nutty Botanicals
Mangoes	Fleshy	Fruit Botanicals
Mint	Fresh	Herbal Botanicals
Navel oranges	Sweet	Citrus Botanicals
Orris root	Warm	Woody Botanicals
Peaches	Fleshy	Fruit Botanicals
Rosemary	Fragrant	Herbal Botanicals
Roses	Perfumed	Floral Botanicals
Sage	Fragrant	Herbal Botanicals
Tangelos	Sweet	Citrus Botanicals
Thyme	Fragrant	Herbal Botanicals
Violets	Perfumed	Floral Botanicals
Walnuts	Woody	Nutty Botanicals



Figure 7



The molecular structure of quinine



## Description 1

### Tanqueray<sup>42</sup>

Since the 1870s. This is a single shot gin made in a pot still, the brainchild of Charles Tanqueray.

**Nose:** Fresh and smooth, with juniper and citrus

**Palate:** Balanced and dry, with juniper, coriander and liquorice

**Finish:** Long and full, with juniper and a hint of pepper/spice

- Juniper
- Coriander
- Angelica root
- Liquorice



## Description 2

### Gordon's Gin<sup>43</sup>

Since 1769, by Alexander Gordon.

**Nose:** Fresh with juniper and citrus

**Palate:** Dry and fresh, with juniper and citrus

**Finish:** Short and light, with juniper and citrus

- Juniper
- Coriander
- Angelica root
- Liquorice
- Orris root
- Ginger
- Nutmeg
- Cassia oil
- Orange peel
- Lemon peel



### Description 3

## Bombay Sapphire<sup>44</sup>

Since 1987, based on a recipe from 1761.

**Nose:** Sweet and aromatic, with citrus and juniper

**Palate:** Initially light, followed by spices and earthy notes

**Finish:** Sweet and lingering, with juniper and peppery spices

- Juniper
- Coriander
- Angelica root
- Liquorice
- Orris root
- Cubeb berries
- Lemon peel
- Almond
- Grains of paradise
- Cassia bark



## Description 4

### Hendrick's<sup>45</sup>

Since 1999, the brain child of Lesley Gracie, a fine Yorkshire-born distiller based in Scotland, whose passion for quality and excellence epitomises heritage, guardianship and legacy.

**Nose:** Fresh and floral, with sweet lime and light spices

**Palate:** Smooth, with rose and sweet citrus

**Finish:** Long and floral, with rose

- Juniper
- Coriander
- Angelica root
- Orris root
- Cubeb berry
- Lemon
- Caraway
- Chamomile
- Elderflower
- Orange peel
- Yarrow



#### Description 4 continued

Marrying two gin distillation charges and infusing this with rose petals and cucumber sets this gin apart. The Hendrick's team have taken the use of rose petals to a new level of sophistication. Pairing this with cucumber merely reinforces its reputation as a gin without peer.

Poor Toms Gin in Marrickville, NSW, marries two gin distillation charges in a similar fashion – albeit with a differing array of botanicals – to reflect quintessentially Australian origins.



## Description 5

### Beefeater

Since the 1870s,<sup>46</sup> founded by James Burrough with first production taking place in 1876 at the Chelsea Distillery he bought for £400 in 1863.<sup>47</sup>

**Nose:** Clean and earthy, with juniper and citrus

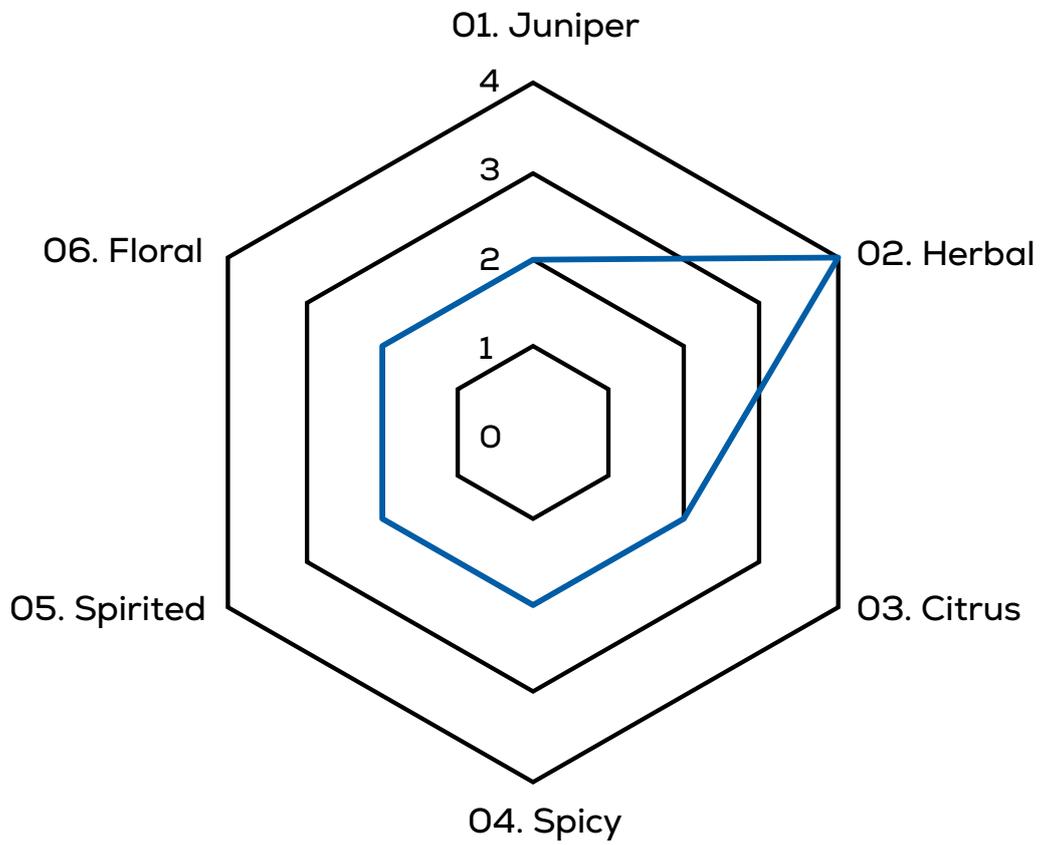
**Palate:** Smooth and clean, with orange and coriander

**Finish:** Sweet and lingering, with orange and coriander

- Juniper
- Coriander
- Liquorice
- Almond
- Orris root
- Orange peel
- Lemon peel



## GSD 1





## GSD 2

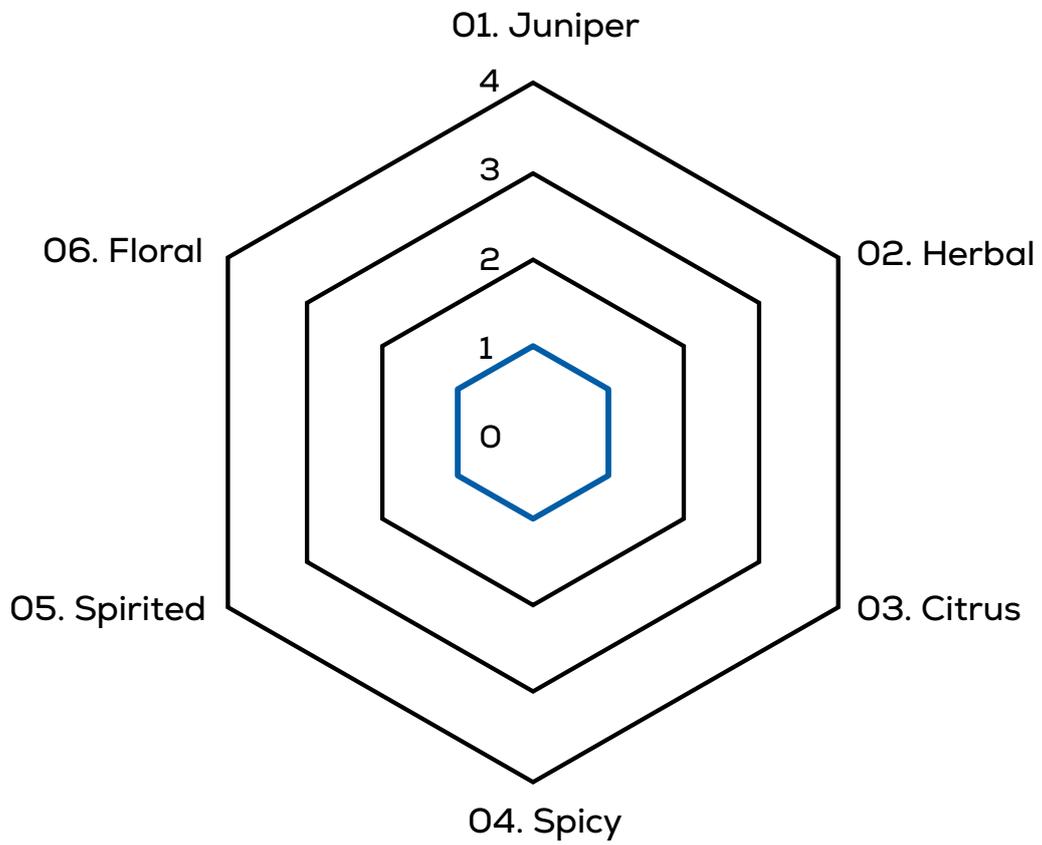


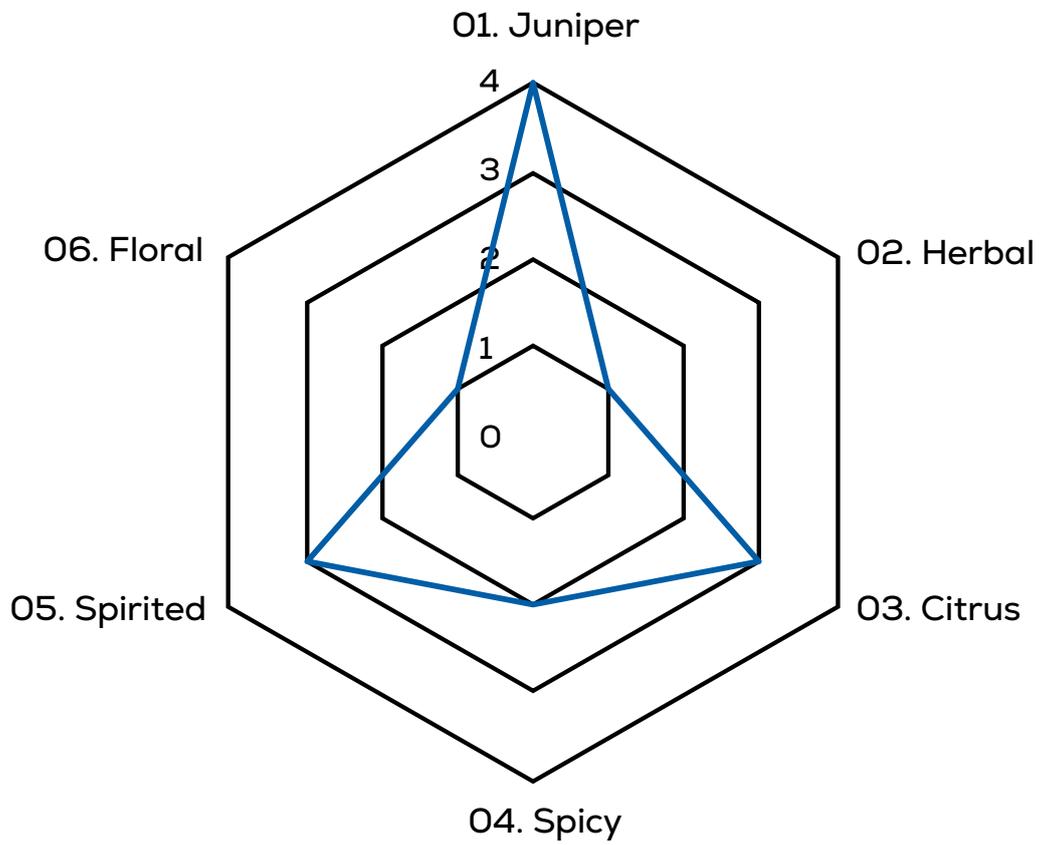


Table 14

GIN VISUALISATION TOOL - ASSESSMENT FOR:		ROKU	
NO.	Question	Guidance	Score
1	Describe / rate the level of juniper intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	2
2	Describe / rate the level of herbal intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	4
3	Describe / rate the level of citrus intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	2
4	Describe / rate the level of spiciness intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	2
5	Describe / rate the level of alcohol intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	2
6	Describe / rate the level of floral intensity	01. Absent 02. Minor Level 03. Moderate Level 04. High Level	2

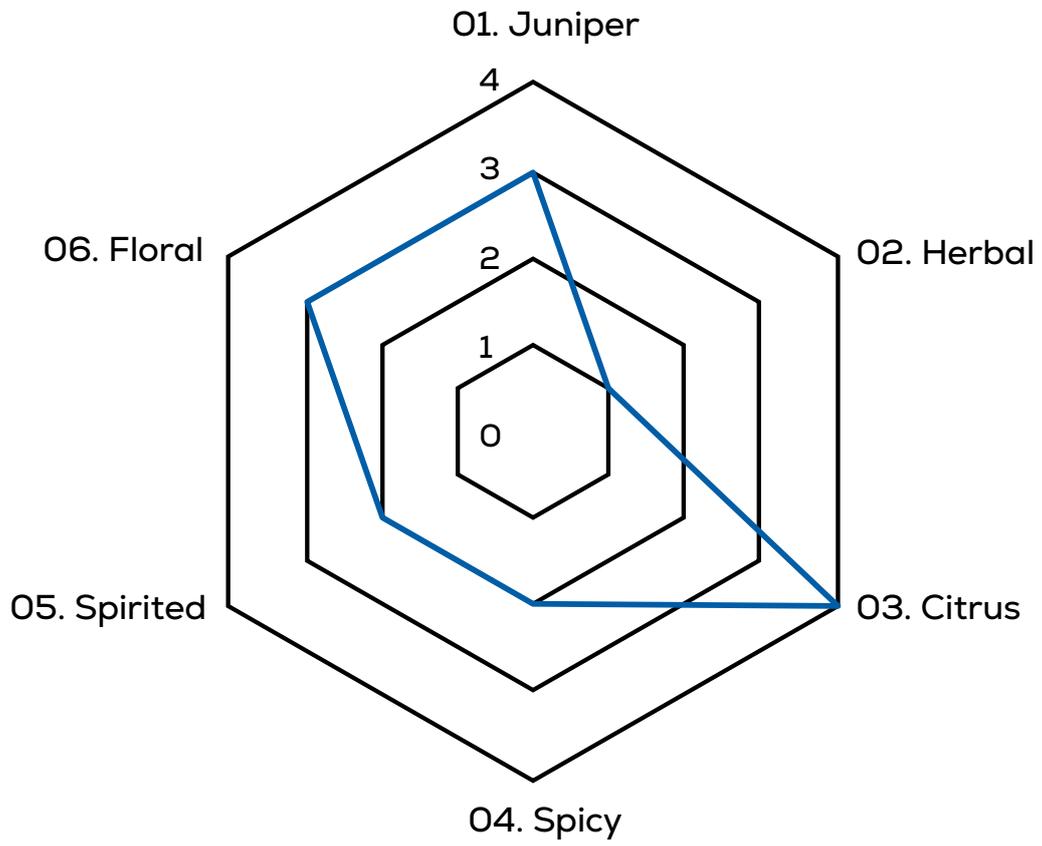


### GSD 3



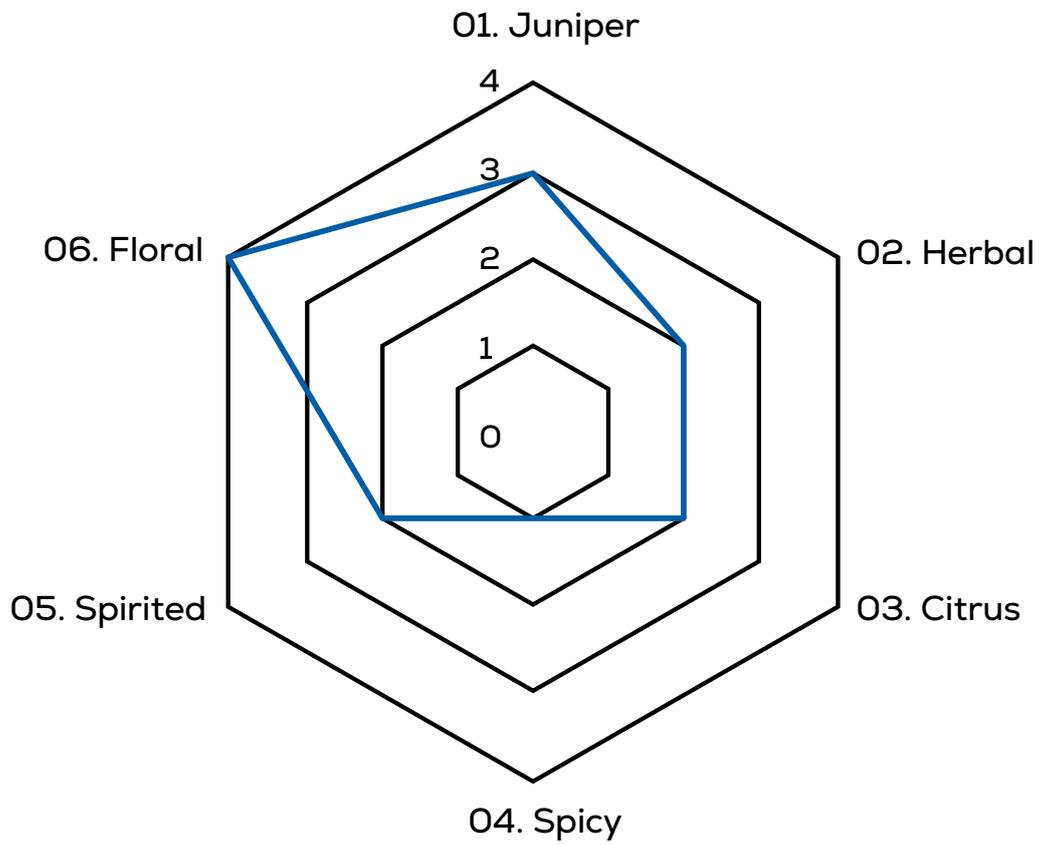


## GSD 4





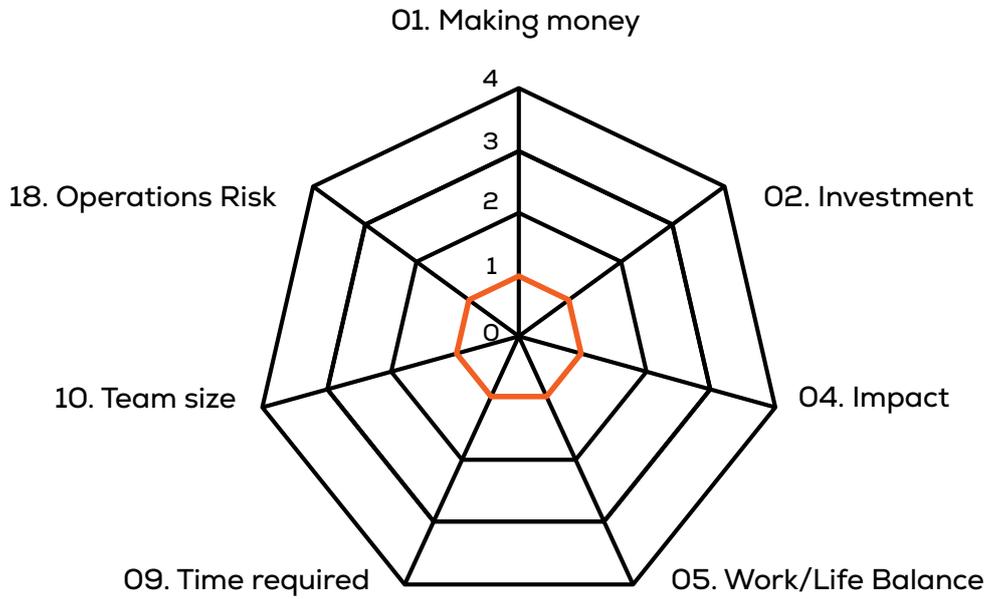
## GSD 5





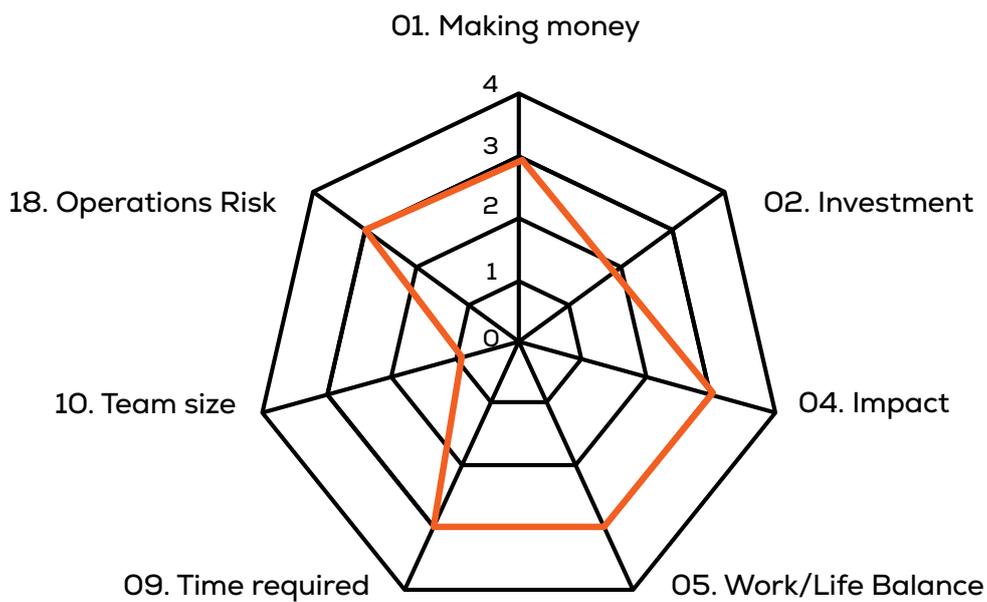
### DVSD 1

Distilling ventures: hobby or business - 0



### DVSD 2

Distilling ventures: hobby or business - 2.57





## Glossary

Alcoholic strength	Measure of per cent alcohol by volume. Stated as ABV or alc/vol it must be measured by a method approved by the local regulatory body.
Alcoholic volume	Measure as litres of absolute alcohol. Express in LAL. It is the product of volume (in litres) multiplied by alcoholic strength at the appropriate local temperature.
Azeotrope	A mixture of two liquids with a boiling point that is lower than either component part. This is the heart of all distillation work and the basis for end-product purity. It comprises a mixture of some 96% alcohol and 4% water, boiling at 78.2 Celsius.
Bathtub Gin	Compounded gin (a style looked down upon by distillers, as the botanicals are steeped in high proof spirit rather than distilled).
Botanicals	The collective term to describe gin components of plant origin.
Closures	Fitments that are used to seal a bottle:  ROPP – roll-on pilfer proof EST – external screw thread NRF – no refillable fitment Cork



Compounding	The use of full-strength alcohol to enhance and balance a gin's botanicals.
Congeners	This refers to small amounts of chemicals such as methanol, fusel alcohols, acetone, acetaldehyde, esters, tannins, and aldehydes that result from a fermentation process. Distillation processes endeavour to remove these via the heads (foreshot) fraction as these can adversely impact final product quality.
Craft gin	Small batch artisanal local gins.
Demineralisation	Purification of water in which the metals and their salts are removed.
Disgorged	Emptied.
Filling Temperature	Temperature at which the alcoholic product is filled.
Gas Chromatography (GC)	A technique used in analytical chemistry for separating and analysing compounds capable of vaporisation. Typical uses of GC include testing the purity of a particular substance, or separating the different components of a mixture. In some situations, GC may help in identifying a compound.
Genever	Original Dutch juniper spirit which led to the creation of this drink. It retains the flavour of the grains on which it was based.



Genever	Original Dutch juniper spirit which led to the creation of this drink. It retains the flavour of the grains on which it was based.
Gin Pentagon	A visual assessment tool that illustrates the relative intensity of five gin descriptors on a scale from 1 to 3.
GSD	Gin Spider Diagram. A visual assessment tool illustrates the relative intensity of six gin characteristics using a scale from 1 to 4.
Hand-ball	Move or load by hand.
Heads	The initial distillate fraction that distillers collect but put aside. This fraction is often full of poor quality congeners such as methanol.
Heart	The distillate fraction that gin makers retain for use in gin production. The distiller's skill lies in the ability to determine where to start collecting the heart, and then when to stop.
Hydrometer	A device used to measure strength by suspension in alcohol. Coupled with using a thermometer, the raw measurements from the thermometer and hydrometer are corrected to 20°C.
In-line filtration	System of filtration in which the filtered product is bottled immediately after filtration.



Integrity	Maintaining the perfect state.
International Gins	These are mass-produced gins made in huge volumes.
London Dry	A style of gin that can be made anywhere in which juniper is the dominant botanical, and is made in the 'one shot' method. All the botanicals are added to the still, the distillation takes place, and then the gin is blended with water with nothing else added.
Modern Classic Gin	This category describes gins that are less-juniper and citrus-forward than a traditional London Dry, allowing other botanicals to contribute more readily to the flavour profile. They typically have most or all of their botanicals the same as a traditional London Dry, and may introduce a couple of novel botanicals. Examples are Aviation and Hendrick's Gin, as well as the majority of those described as 'contemporary'.
Modern Regional Gin	This is a type of gin that uses mostly local botanicals to make a gin that distinctly represents the local area. These gins still have a juniper backbone. Gins in this group include The Botanist, Four Pillars Rare Dry Gin, and Poor Toms Sydney Dry Gin.



Mother's Ruin	A term originating in seventeenth century London used to describe gin and its social impacts.
Navy Strength	Around 57% alcohol, developed because the British Navy used to keep gin next to the gunpowder, and to ensure that the gunpowder would still ignite if the gin spilt onto it.
Non-fillable fitment	Fitment that stops bottles from being refilled after the contents are consumed.
Objective Reasoning	A decision-making technique that compares and contrasts the relative merits of two or more options.
Old Tom Gin	A slightly sweeter style of gin, generally using slightly sweeter botanicals along with added sugar.
Organoleptic testing	Checking the aroma and taste of a liquid.
Passivate	Rendering a surface inert to an alcoholic product.
pH	A measure that describes the acidity of a liquid.
Pickled	Immersion in alcohol to remove odours, and to passivate surfaces.



Reduction	Lowering the alcoholic strength to that required for bottling.
Reverse Osmosis	A process that treats municipal water supplies for use in gin making.
SynGyn	A neologism for a synthetic product – Synthetic Gin – built from analytical grade extracts of juniper's most prominent flavour components.
Tails	The final distillate fraction that contains flavour compounds with high boiling points such as amyl alcohol. Distillers will put these aside as well for either additional treatment or licensed trade waste disposal.
Torque Tester	Equipment used to measure the amount of force required to break a ROPP when opening a bottle.
Vat	Storage tank



## AWARDS

Marcel's products have won a number of awards

<i>Product</i>	<i>Competition</i>	<i>Year</i>	<i>Award</i>
Poor Toms Sydney Dry Gin	San Francisco Spirits Competition, San Francisco	2016	Silver
Poor Toms Sydney Dry Gin	San Francisco Spirits Competition, San Francisco	2017	Gold
Poor Toms Sydney Dry Gin	San Francisco Spirits Competition, San Francisco	2018	Bronze
Fool Strength Gin	San Francisco Spirits Competition, San Francisco	2018	Bronze
Fool Strength Gin	Australian Distilled Spirits Awards, Melbourne	2018	Gold
Fool Strength Gin	International Wines and Spirits Competition, London	2018	Gold



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