Quality Survey 2003 Harvest

Barley

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HGCA Cereal Quality Survey 2003

Barley

Summary of results

Overall the 2003 GB barley harvest is of high quality. Specific weight averages are high, nitrogen content levels are mixed but very low in the key Scottish region and screenings levels are better than the 3-year averages across the country and by variety.

Test Results

1. Specific weight

2003 average specific weight values for barley are generally higher than 3-year average results across the whole of Great Britain. Only across the Northern region and Wales are average values slightly lower. The South East and Northern regions averaged the highest at 68.0Kg/hl whilst Scotland averaged the lowest at 67.1Kg/hl.

Prestige, Fanfare and Gleam have the highest average specific weight results at 70.1 Kg/hl, 69.6 Kg/hl and 69.3 Kg/hl respectively, whereas Siberia proved to have one of the lowest at 62.3 Kg/hl. All varieties demonstrated average specific weight results above their respective 3-year averages, with Decanter (69.1 Kg/hl), Cellar (67.3 Kg/hl) and Chalice (68.2 Kg/hl) the notable gainers.

At 68.0 Kg/hl average spring barley averages across the whole of Great Britain demonstrated a 1.6 Kg/hl improvement over the 3-year average results. Scottish spring barley varieties averaged 68.6 Kg/hl.

2. Nitrogen Content

Nitrogen content results show a mixed picture across England. The Eastern (1.77%), Midlands & Western (1.83%), South West (1.77%) and Northern (1.80%) regions all posted averages above their respective 3-year averages whilst in the South East region results were lower at 1.76%. Collective Scottish samples averaged 1.56%, over 5% lower than the 3-year average of 1.65%.

A third of varieties demonstrate lower Nitrogen content results than their individual 3-year averages with Prestige (1.65%) and Optic (1.64%) leading the pack. Regina (2.00%), Chalice (1.81%), Antonia (2.17%), Jewel (2.08%), Vanessa (1.90%) were all more than 5% above their individual 3-year averages.

Spring varieties averaged 1.66%, 2.2% lower than their 3-year average of 1.7% and winter varieties averaged 1.87%.

3. Screenings %< 2.25mm

All varieties had lower screenings results than their individual 3-year average results. The bulk of varieties demonstrated averages between 2.0% and 3.5% with Vanessa at the low end of the scale at 1.7% to Decanter with 5.6%.

4. Screenings %> 2.5mm

Retained screenings results were also an improvement over previous years with all regions except Scotland having higher results that their 3-year averages. Scotland averaged 85.2%, down 2% on its 3-year average.

Information on line:

- Survey regions, methodology and historical results available here: http://www.hgca.com/surveys/miniweb/mi_survey_site_map.htm

Analysis of Barley by Variety

Mean Values

	Specific Weight kg/hl		Small Grains %<2.2 mm		Nitrogen Content %d.m.		Screenings Values %<2.25mm		Screenings Values %>2.5mm	
Antonia	66.1	*2.7*	*	*	2.17	*0.2*	3.1	*1.8*	84.5	*9.5*
		69		*		19		22		34
Barke	67.4	*2.5*	*	*	1.83	*0.2*	3.2	*1.7*	91.8	*4.8*
		79		*		79		79		79
Cellar	67.3	*1.9*	2.1	*1.6*	1.72	*0.2*	2.2	*2*	92.3	*6.2*
		540		48		554		554		555
Chalice	68.2	*2*	2.9	*2.4*	1.81	*0.3*	3.4	*2.1*	87.4	*6.8*
		150		150		236		98		167
Chariot	68.1	*1.4*	*	*	1.76	*0.2*	3.4	*1.9*	89.2	*5.6*
		42		*		39		39		39
Decanter	69.1	*1.3*	3.8	*2.2*	1.61	*0.2*	5.6	*4.8*	80.0	*10.1*
		109		102		524		427		476
Diamond	65.7	*3*	*	*	1.85	*0.2*	3.8	*2*	87.9	*6.2*
		83		*		83		83		83
Fanfare	69.6	*1.5*	*	*	1.69	*0.2*	3.1	*2.7*	88.9	*7.2*
		67		*		67		67		67
Gleam	69.3	*1.3*	*	*	1.82	*0.2*	4.6	*2*	82.0	*6.4*
		29		*		29		29		29
Jewel	67.4	*2.4*	*	*	2.08	*0.1*	2.4	*1.2*	90.0	*4.6*
		47		*		19		20		28
Muscat	68.3	*2.1*	4.4	*2.1*	*	*	*	*	*	*
		78		78		*		*		*
Optic	68.0	*2.4*	2.4	*1.6*	1.64	*0.2*	3.0	*2.7*	89.2	*7.1*
		3,389		773		4,007		3,417		3,711
Pearl	67.8	*2.4*	3.0	*2.4*	1.86	*0.2*	3.4	*2.7*	89.4	*7.1*
		4,320		1,076		4,354		3,678		3,989
Prestige	70.1	*1.5*	1.4	*0.7*	1.65	*0.2*	2.0	*1.5*	92.4	*5.5*
		73		72		245		245		244
Regina	66.3	*2.5*	2.8	*1.4*	2.00	*0.2*	4.0	*2.9*	87.8	*6.9*
		277		129		276		171		227
Siberia	62.3	*2.8*	3.8	*1.9*	2.02	*0.2*	4.3	*1.9*	83.9	*5.1*
		170		100		22		32		33
Vanessa	67.1	*2.8*	*	*	1.90	*0.2*	1.7	*1*	94.6	*3.5*
		240		*		240		240		240
Spring	**68.0**	*2.3*	**2.5**	*1.8*	**1.66**	*0.2*	**3.1**	*2.9*	**88.8**	*7.9*
		4,405		1,164		5,709		4,884		5,296
Winter	**67.5**	*2.7*	**3.1**	*2.4*	**1.87**	*0.2*	**3.3**	*2.6*	**89.4**	*7.1*
		5,418		1,411		5,129		4,360		4,748
Malting	**67.9**	*2.4*	**2.8**	*2.2*	**1.76**	*0.2*	**3.3**	*2.9*	**88.9**	*7.6*
		8,698		2,313		10,021		8,415		9,193
Feed	**66.4**	*3*	**3.5**	*2*	**1.78**	*0.2*	**2.7**	*2.1*	**90.9**	*6.7*
		1,125		262		817		829		851

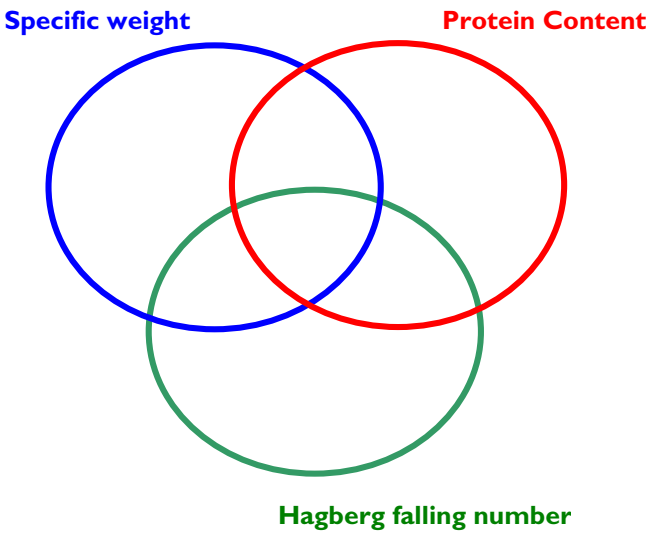
Analysis of Barley by Region

	Specific Weight kg/hl		Small Grains %<2.2 mm		Nitrogen Content %d.m.		Screenings Values %>2.25mm		Screenings Values %>2.5mm	
UK	**67.5**		**3.3**		**1.72**		**3.4**		**88.2**	
		10,416		**2,865**		**11,099**		**9,518**		**10,326**
EAST	**67.5**		**2.5**		**1.77**		**2.5**		**91.6**	
		2,313		**281**		**2,295**		**2,284**		**2,288**
NORTH	**67.5**		**3.8**		**1.65**		**3.8**		**86.8**	
		3,320		**2,193**		**4,217**		**2,647**		**3,420**
Northernn	68.0	2.6	3.8	3.6	1.80	0.2	3.6	2.7	89.1	6.5
		3,253		2,192		2,699		1,133		1,905
Scotland	67.1	3.6	*	*	1.56	0.2	3.9	3.4	85.2	9.0
		67		*		1,518		1,514		1,515
SOUTH AND WEST	**67.5**		**3.4**		**1.79**		**3.3**		**88.8**	
		4,783		**391**		**4,587**		**4,587**		**4,618**
South Eastern	68.0	2.3	2.7	2.5	1.76	0.2	2.8	2.5	90.0	6.4
		1,173		194		1,132		1,125		1,127
South Western	67.5	2.6	4.0	3.8	1.77	0.2	3.5	2.9	87.3	8.2
		1,044		65		963		971		987
Midlands & Western	67.3	2.5	3.3	2.5	1.83	0.2	3.3	2.7	89.4	7.4
		2,566		132		2,492		2,491		2,504

Explanation of Diagrams

The following diagrams are made up of three overlapping circles that is used to show relationships between sets of information.

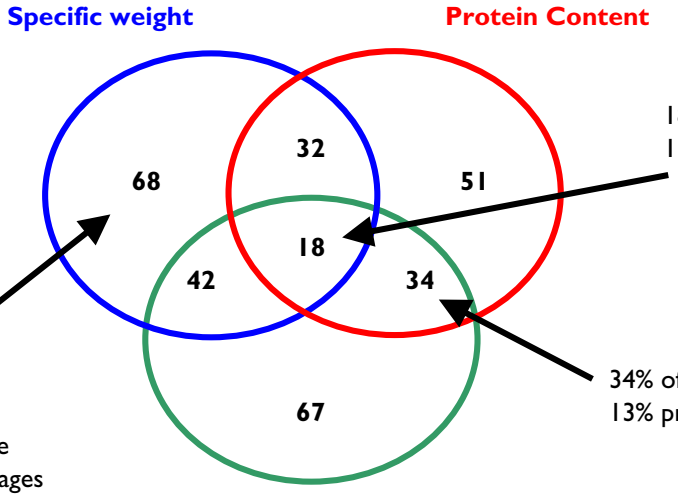
In the example below a diagram is used to show the relationships between specific weight, protein content and Hagberg falling numbers.



When this principle is applied to the samples held for the Cereal Quality Survey a picture emerges of the availability of certain grades of wheat.

Percent of nabim Group 1 samples that meet the following criteria:

Greater than 76kg/hl
Greater than 250 Hagberg
Greater than 13% Protein



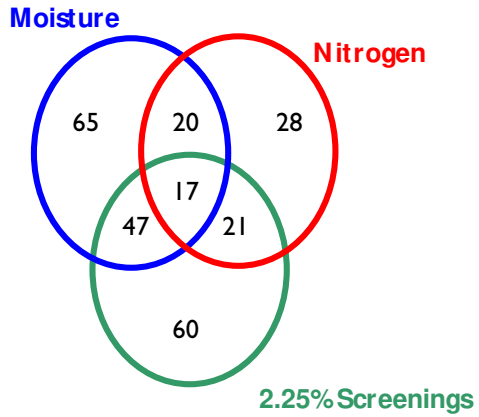
18 % of samples meet 76kg, 13% protein, 250 Hagberg

34% of samples meet both 13% protein & 250 Hagberg

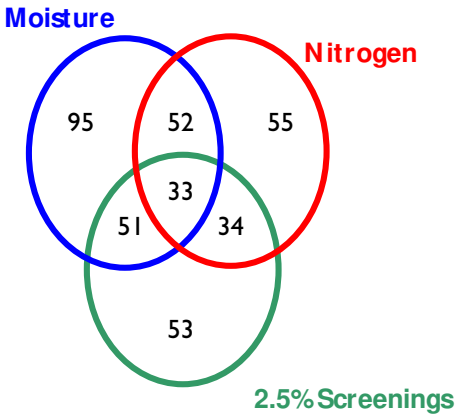
68% of samples have specific weight averages higher than 76kg/hl **(irrespective of Haberg & Protein)**

Great Britain Average

Domestic Brewing



Distilling



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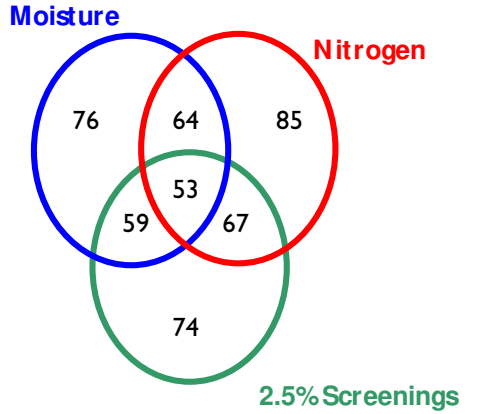


Quality Specification

Domestic Brewing

Pearl & Regina, <15% Moisture, <1.75% Nitrogen, <4% 2.25mm Screening

Distilling Barley

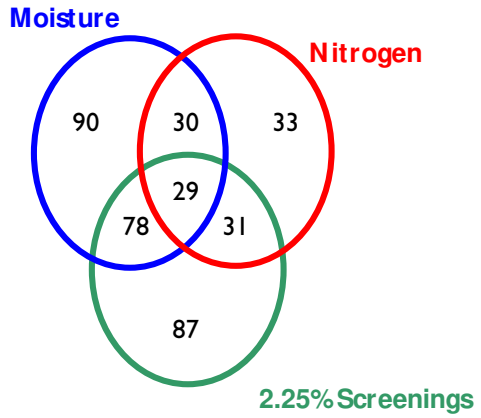
Chariot, Optic & Prisma, <17% Moisture, <1.65% Nitrogen, >90% 2.5mm Screening

Export Grade

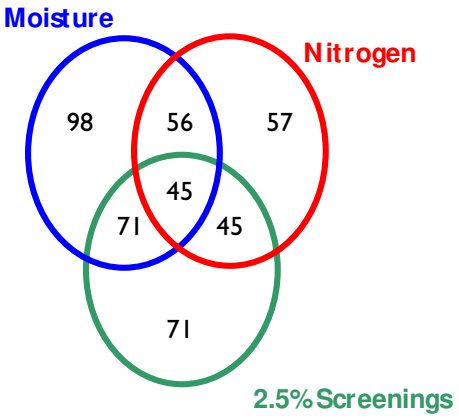
Optic, <15% Moisture, <1.85% Nitrogen, >85% 2.5mm Screening

Eastern

Domestic Brewing



Distilling



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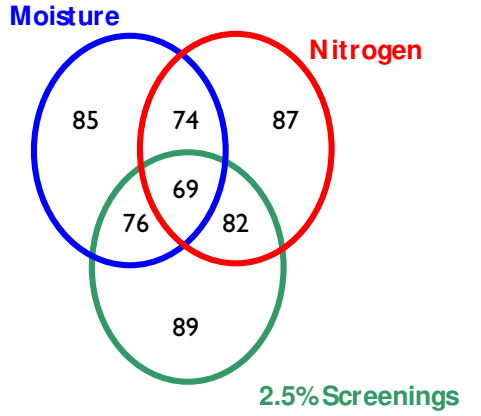

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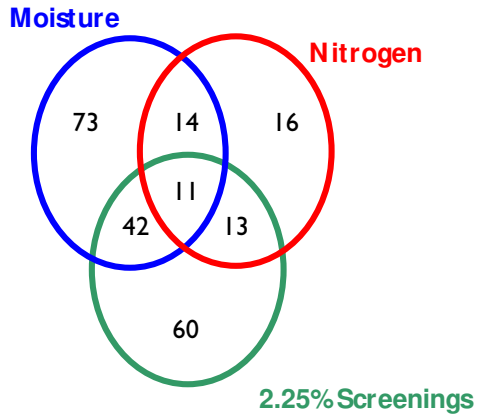
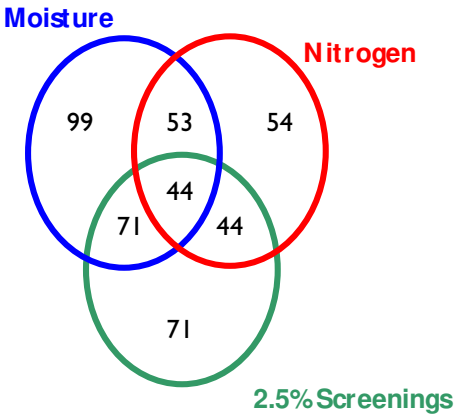
South East

Domestic Brewing



Distilling



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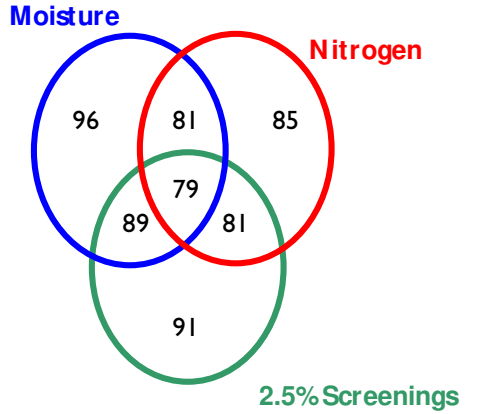

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Distilling Barley

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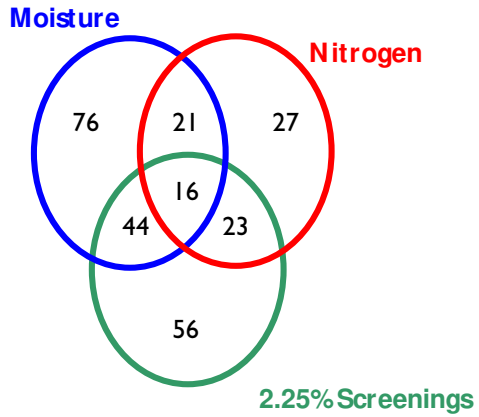
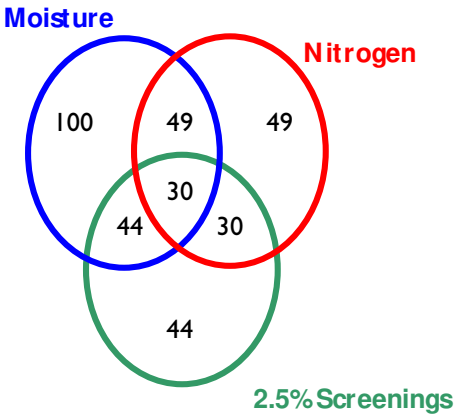
South West

Domestic Brewing



Distilling



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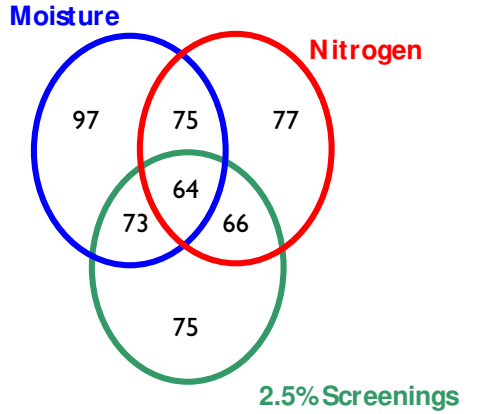

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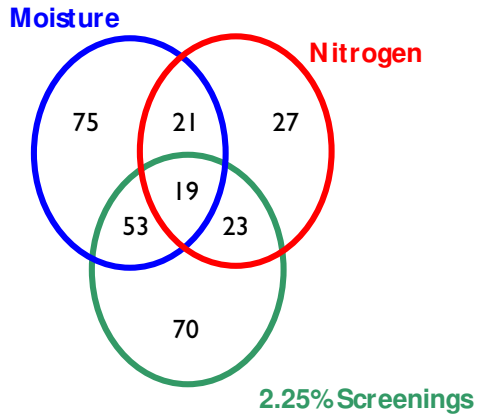
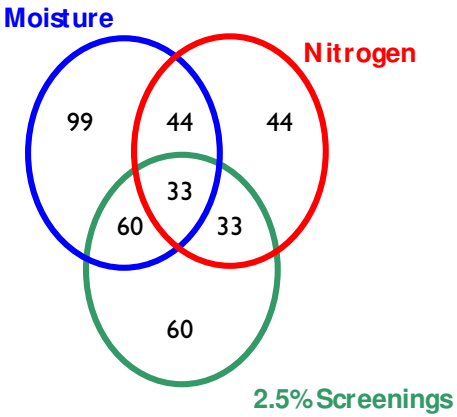
Midlands & W estern

Domestic Brewing



Distilling



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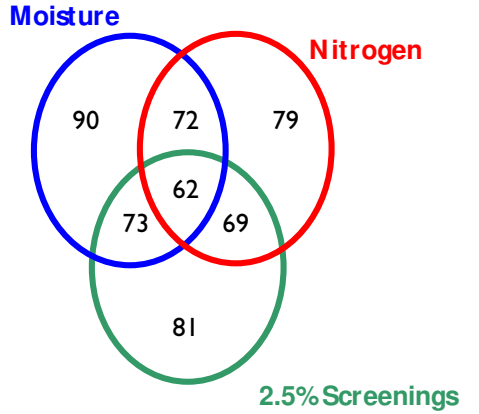

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Distilling Barley

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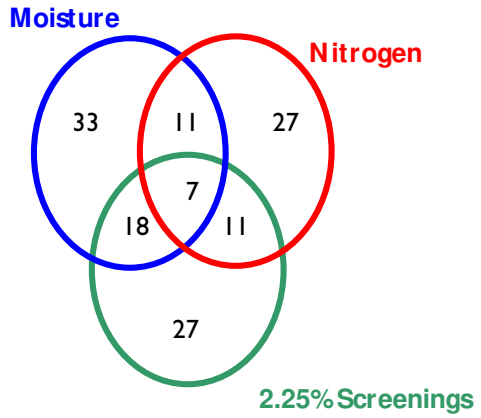
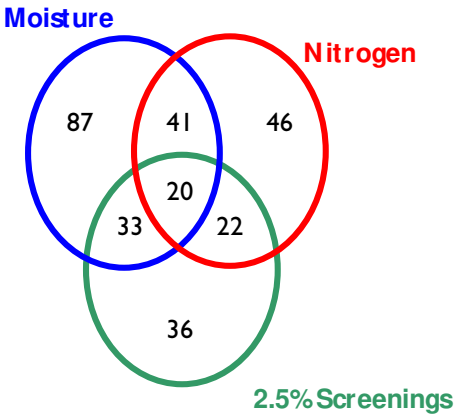
Northern

Domestic Brewing



Distilling



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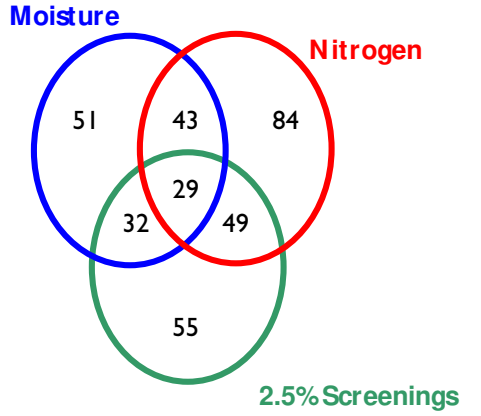

Quality Specification

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Distilling Barley

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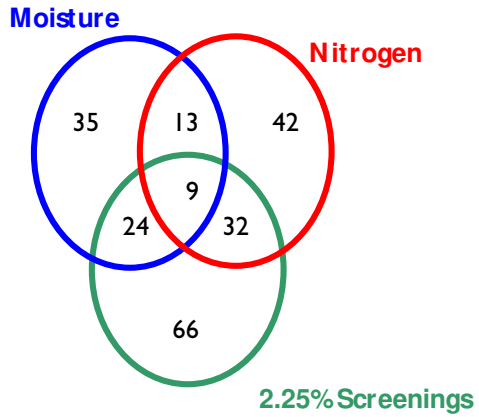
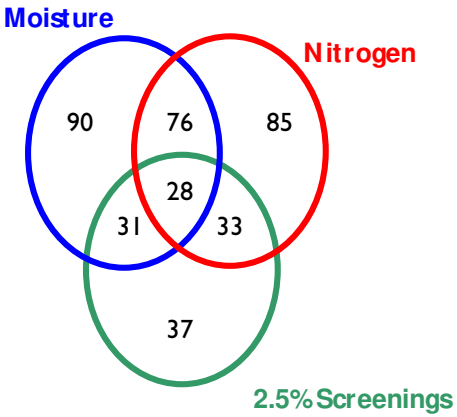
Scotland

Domestic Brewing



Distilling



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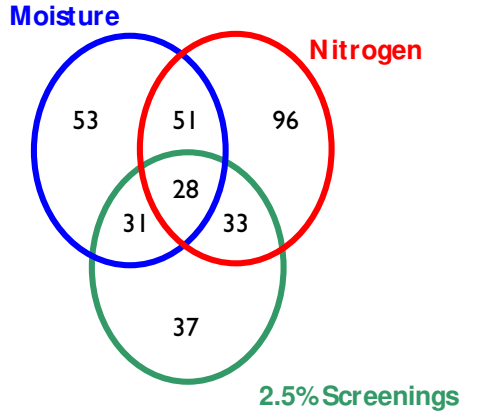

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