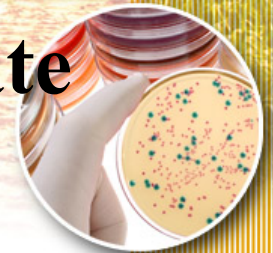




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# Condiment Mustard Breeding: Update

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# Outline of the Presentation

- **Yellow Mustard Adaptation Test in 2019**
- **Summary of agronomic performance of candidate yellow mustard varieties**
- **Brown and oriental mustard yield trials**



# Yellow Mustard Adaptation Test

<b>1</b>	<b>Andante (check)</b>
<b>2</b>	<b>Y3464</b>
<b>3</b>	<b>Y3498</b>
<b>4</b>	<b>Y3516</b>
<b>5</b>	<b>Y3522</b>
<b>6</b>	<b>Y3524</b>
<b>7</b>	<b>Y3786</b>
<b>8</b>	<b>Y3787</b>
<b>9</b>	<b>Y3788</b>
<b>10</b>	<b>Y3793</b>
<b>11</b>	<b>Y3795</b>





# Yellow Mustard Adaption Test in 2019

<b>Locations</b>	<b>CV (%)</b>
<b>AAFC-Saskatoon date 2</b>	<b>7.8</b>
<b>AAFC-Scott date 1</b>	<b>7.3</b>
<b>AAFC-Scott date 2</b>	<b>6.1</b>
<b>AAFC-Swift Current date 1</b>	<b>5.4</b>
<b>AAFC-Swift Current date 2</b>	<b>6.5</b>
<b>AAFC-Swift Current date 3</b>	<b>9.5</b>
<b>Redvers date 1</b>	<b>5.8</b>
<b>Redvers date 2</b>	<b>9.0</b>
<b>Coaldale date 1</b>	<b>11.8</b>
<b>Melita date 1</b>	<b>7.5</b>
<b>Melidate 2</b>	<b>9.2</b>



# Agronomic performance of yellow mustard candidate varieties in yield trail (2018) and in Mustard Adaptation Test (2019) 15 locations

Entry	Yield kg/ha	Yield % Andante	Height cm	Lodging 1-5	Maturity days
Andante	1933	100.0	119	1.3	90
Y3516	2073**	107.2	121	1.4	90
<b>Y3786</b>	<b>2107**</b>	<b>109.0</b>	<b>124**</b>	<b>1.3</b>	<b>90</b>
Y3787	2049**	106.0	123**	1.7	90
Y3788	2069**	107.0	124**	1.6	90
F-Value	6.47**		3.27**	3.20**	2.88**
Locations	15		15	5	15



# Quality Characteristics of yellow mustard candidate varieties in yield trail (2018) and in Mustard Adaptation Test (2019) 15 locations

Entry	Seed Size g/1000s	Seed Oil %	Seed Protein %	GLS Umole/ g	Color WI	Green Seed %	Mucilage
Andante	5.81	29.0	34.7	138	-35.5	0.6	68
Y3516	5.33**	29.6**	34.6	134	-37.7**	0.6	79**
<b>Y3786</b>	<b>5.78</b>	<b>29.5**</b>	<b>34.6</b>	<b>134</b>	<b>-38.4**</b>	<b>0.6</b>	<b>69</b>
Y3787	5.75	29.4**	34.8	136	-38.0**	0.6	75*
Y3788	5.81	29.4**	34.8	135	-38.5**	0.7	73
F-Value	45.5**	10.9**	4.66**	1.35 <sup>ns</sup>	12.3**	1.56 <sup>ns</sup>	6.51**
Locations	15	15	15	10	15	15	4

# Oriental mustard replicated yield trial

- **Entries: 11 entries (25 test hybrids and Cutlass (check))**
- **4 Replicates**
- **Randomized complete block design**
- **Locations:**
  - 1. AAFC-Saskatoon: CV 8.5%**
  - 2. AAFC-Swift Current date 1: CV 5.8%**
  - 3. AAFC-Swift Current date 2: CV 6.8%**
  - 4. AAFC-Scott: CV 8.1%**





## Agronomic performance of the oriental mustard test hybrids in the Yield Trials in 2019

Entry	Yield Kg/ha	Yield % Cutlass	Seed Size g/1000s	Height cm	Maturity days
Cutlass	2949	100.0	2.68	142	95
O3620	3188**	108.1	3.25**	165**	98**
O3973	3228**	109.5	3.03**	157**	98**
O3982	3217**	109.1	3.28**	142	93
O3988	3239**	109.8	2.92**	144	94
O3989	3288**	111.5	2.68	157**	97*
F-value	4.38**		48.7**	13.8**	5.79**
Locations	4		4	4	4



## Quality Characteristics of the oriental mustard test hybrids in the Yield Trials in 2019

Entry	Seed Oil %	Seed Protein %	GLS-NIR	Colour	Green Seed %
Cutlass	42.3	29.6	91.0	-43.6	0.62
O3620	42.8	28.9*	90.1	-43.2	0.92
O3973	42.5	29.2	101.8**	-38.1**	0.82
O3982	41.5*	29.1	88.6	-35.6**	0.64
O3988	41.0**	29.1	81.2**	-36.3**	0.51
O3989	43.2**	29.8	90.5	-39.8	0.92
F-value	14.7**	6.18**	26.7**	43.6**	4.36**
Locations	4	4	4	4	4

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Thank you!

