

Report Date: 24/08/2011

## Analysis Report N° 11/621

Submitter Details	
<b>Name:</b>	
<b>Company:</b>	Australian Olive Association <b>ABN:</b>
<b>Address:</b>	
<b>Phone:</b>	<b>Fax:</b>
<b>Email:</b>	

### SAMPLES

Number:	<b>4</b>	Date sampled:	-
Type:	<b>Extra virgin olive oil</b>	Date received:	<b>17/08/2011</b>
Sampling:	The laboratory is not responsible for the sampling. The samples are analysed as received.		

### SAMPLE REFERENCES

Identification of sample	Laboratory reference code	Identification of sample	Laboratory reference code
Oz Olio Rich & Flavourfull 500 ml BB 22/02/14 B10P07	11/621-01	Oz Olio Fruity & Aromatic 500 ml BB 16/11/13 B10320	11/621-03
Oz Olio Fruity & Aromatic 1 L Use by 30/03/13 B10089	11/621-02	Oz Olio Rich & Flavourfull 1 L BB 23/05/14 B10F02	11/621-04



Accreditation No 15594

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for compliance with ISO/IEC 17025



AOCS Approved chemist



## RESULTS

### Quality parameters

Lab ref	FFA	PV	K232	K270	Δ K
11/621-01	<u>0.9</u>	5.8	1.844	0.165	0.003
11/621-02	0.4	7.5	2.410	<u>0.237</u>	0.006
11/621-03	<u>0.9</u>	5.9	2.120	0.202	0.005
11/621-04	0.4	8.7	2.203	0.170	0.004
AS 5264 limits	≤ 0.8	≤ 20.0	≤ 2.50	≤ 0.22	≤ /0.01/

Lab ref	PPH	MOI	IND	BIT(225)	PPP	DAG
11/621-01	-	< 0.05	17.1	-	15.6	<u>33.1</u>
11/621-02	-	0.09	20.3	-	<u>50.4</u>	37.0
11/621-03	-	0.09	19.0	-	<u>ND</u>	<u>32.5</u>
11/621-04	-	0.07	14.6	-	<u>25.9</u>	43.7
AS 5264 limits	-	≤ 0.2	-	-	≤ 17	≥ 35

### Fatty acid profile

#### References

C14:0	Myristic acid	C18:0	Stearic acid	C20:1	Eicosenoic acid
C16:0	Palmitic acid	C18:1	Oleic acid	C22:0	Behenic acid
C16:1	Palmitoleic acid	C18:2	Linoleic acid	C22:1	Erucic acid
C17:0	Heptadecanoic acid	C18:3	Linolenic acid	C24:0	Lignoceric acid
C17:1	Heptadecenoic acid	C20:0	Arachidic acid	C24:1	Tetracosenoic acid

Lab ref	C14:0	C16:0	C16:1	C17:0	C17:1	C18:0	C18:1	C18:2	C18:3	C20:0	C20:1	C22:0	C24:0
11/621-01	0.01	11.4	0.9	0.1	0.1	2.3	75.3	8.3	0.7	0.4	0.3	0.1	0.1
11/621-02	0.01	11.7	0.9	0.1	0.1	2.6	72.6	10.4	0.8	0.4	0.3	0.1	0.1
11/621-03	0.01	10.9	0.8	0.1	0.1	2.5	76.2	8.1	0.6	0.4	0.3	0.1	< 0.1
11/621-04	0.01	12.4	1.0	< 0.1	0.1	2.2	73.2	9.5	0.7	0.4	0.3	0.1	< 0.1
AS 5264 limits	≤ 0.05	7.5 - 20.0	0.3 - 3.5	≤ 0.3	≤ 0.4	0.5 - 5.0	53.0 - 85.0	2.5 - 22.0	≤ 1.5	≤ 0.6	≤ 0.5	≤ 0.2	≤ 0.2

## Organoleptic assessment

Lab ref	Defects	Fruitiness	Bitterness	Pungency	Classification
11/621-01	4.0*	2.5	1.0	1.0	Lampante
11/621-02	2.5*	3.0	1.5	2.0	VOO
11/621-03	2.0#	3.8	1.0	1.5	VOO
11/621-04	4.0*	2.0	1.0	1.0	Lampante

AS 5264 limits	Md = 0.0	Mf > 0.0			EVOO
	0.0 < Md ≤ 2.5	Mf > 0.0			VOO
	Md > 2.5	-			Lampante

Defects: \* Fusty/Muddy Sediments; # Rancid and Fusty



Claudia Guillaume  
Laboratory Manager

## ANALYSIS REQUIRED, METHODS, UNITS AND UNCERTAINTY.

Description	Ref	Method used	Results, units reported as	U*
(*) Free fatty acids	FFA	AOCS Ca 5a-40	g % of oleic acid	0.02
(*) Peroxides value	PV	AOCS Cd 8-53	meq O <sub>2</sub> / kg oil	0.52
(*) UV coefficients	UV	AOCS Ch 5-91	Extinction at 232nm and 270nm	0.03; 0.02; 0.00
(*) Induction time	IND	AOCS Cd 12b-92	Hours at 110°C	1.42
(*) Pyropheophytins a	PPP	ISO 29841	%	0.33
(*) 1,2 Diacylglycerols	DAG	ISO 29822	%	1.15
(*) Panel Test	PAT	IOOC/T.20/N <sup>o</sup> 15	Scale: 0 – 10	-
Moisture and Volatile matter	MOI	AOCS Ca 2c-25	%	0.02
(*) Fatty acid profile	FAP	IOC/T.20/N <sup>o</sup> 24	%	0.081

(\*)NATA accreditation covers the performance of these tests.

\* The uncertainty (U) is an expanded uncertainty using a coverage factor of 2, which gives a level of confidence of approximately 95%.

Ref: Australian Standard<sup>o</sup> 5264-2011 limits are only for extra virgin olive oil category.

Please note that the underline results are outside the limits for the category.

**Note 1:** Median of the defects (Md) means the median of the defect that is perceived with the strongest intensity. The value of the coefficient of variation for this defect shall be less than or equal to 20%.

NOTES: This report is only valid for the samples detailed above. This report shall not be reproduced except in full, without approval of the laboratory.

Test results and findings may be provided to authorised staff and used for statistical and certification purposes in accordance with company policies. The source of the information will remain confidential unless otherwise required by Law or regulatory policies.

Report Date: 24/08/2011

## Analysis Report N<sup>o</sup> 11/621

Submitter Details	
<b>Name:</b>	
<b>Company:</b>	Australian Olive Association <b>ABN:</b>
<b>Address:</b>	
<b>Phone:</b>	<b>Fax:</b>
<b>Email:</b>	

### SAMPLES

Number:	<b>4</b>	Date sampled:	-
Type:	<b>Extra virgin olive oil</b>	Date received:	<b>17/08/2011</b>
Sampling:	The laboratory is not responsible for the sampling. The samples are analysed as received.		

### SAMPLE REFERENCES

Identification of sample	Laboratory reference code	Identification of sample	Laboratory reference code
Oz Olio Rich & Flavourfull 500 ml BB 22/02/14 B10P07	11/621-01	Oz Olio Fruity & Aromatic 500 ml BB 16/11/13 B10320	11/621-03
Oz Olio Fruity & Aromatic 1 L Use by 30/03/13 B10089	11/621-02	Oz Olio Rich & Flavourfull 1 L BB 23/05/14 B10F02	11/621-04



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## RESULTS

### 11/621-01

<b>Free Fatty Acid</b> 0.9 g % oleic acid		
<b>NUTRITIONAL INFORMATION</b> Serving size 15 ml		
	Qty per 15 ml	Qty per 100 ml
<b>Energy (KJ)</b>	518	3450
<b>Protein (g)</b>	0	0
<b>Fat</b>		
Total (g)	13.7	91.6
Saturated (g)	2.0	13.1
Monounsaturated (g)	10.5	70.3
Polyunsaturated (g)	1.2	8.2
Trans Fatty Acid (g)	< 0.02	< 0.05
<b>Cholesterol (mg)</b>	0	0
<b>Carbohydrate (g)</b>	0	0
Sugar (g)	0	0

### 11/621-02

<b>Free Fatty Acid</b> 0.4 g % oleic acid		
<b>NUTRITIONAL INFORMATION</b> Serving size 15 ml		
	Qty per 15 ml	Qty per 100 ml
<b>Energy (KJ)</b>	517	3448
<b>Protein (g)</b>	0	0
<b>Fat</b>		
Total (g)	13.7	91.5
Saturated (g)	2.1	13.7
Monounsaturated (g)	10.1	67.6
Polyunsaturated (g)	1.5	10.2
Trans Fatty Acid (g)	< 0.02	< 0.05
<b>Cholesterol (mg)</b>	0	0
<b>Carbohydrate (g)</b>	0	0
Sugar (g)	0	0

## 11/621-03

**Free Fatty Acid**  
0.9 g % oleic acid

### NUTRITIONAL INFORMATION

Serving size 15 ml

	Qty per 15 ml	Qty per 100 ml
<b>Energy (KJ)</b>	517	3448
<b>Protein (g)</b>	0	0
<b>Fat</b>		
Total (g)	13.7	91.5
Saturated (g)	1.9	12.8
Monounsaturated (g)	10.6	70.8
Polyunsaturated (g)	1.2	7.9
Trans Fatty Acid (g)	< 0.02	< 0.05
<b>Cholesterol (mg)</b>	0	0
<b>Carbohydrate (g)</b>	0	0
Sugar (g)	0	0

## 11/621-04

**Free Fatty Acid**  
0.4 g % oleic acid

### NUTRITIONAL INFORMATION

Serving size 15 ml

	Qty per 15 ml	Qty per 100 ml
<b>Energy (KJ)</b>	517	3449
<b>Protein (g)</b>	0	0
<b>Fat</b>		
Total (g)	13.7	91.5
Saturated (g)	2.1	13.9
Monounsaturated (g)	10.2	68.3
Polyunsaturated (g)	1.4	9.3
Trans Fatty Acid (g)	< 0.02	< 0.05
<b>Cholesterol (mg)</b>	0	0
<b>Carbohydrate (g)</b>	0	0
Sugar (g)	0	0

Note: The fatty acid profile may vary between varieties and environmental conditions. These results are only valid for the batch number detailed above.



Claudia Guillaume  
Laboratory Manager

## ANALYSIS REQUIRED, METHODS, UNITS AND UNCERTAINTY.

Description	Ref	Method used	Results, units reported as	U*
(*) Free fatty acids	FFA	AOCS Ca 5a-40	g % of oleic acid	0.02
Moisture and Volatile matter	MOI	AOCS Ca 2c-25	%	0.02
(*) Fatty acid profile	FAP	IOC/T.20/Nº 24	%	0.08 <sup>1</sup>
Trans fatty acids	TFA	IOC/T.20/Nº 17	%	0.008

(\*)NATA accreditation covers the performance of these tests.

\* The uncertainty (U) is an expanded uncertainty using a coverage factor of 2, which gives a level of confidence of approximately 95%.

<sup>1</sup> The U corresponds to Oleic and Palmitic acids being the biggest of them.

Ref: Food Standards Australia New Zealand (FSANZ)

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## Analysis Report N° 11/654

Submitter Details	
<b>Name:</b>	
<b>Company:</b>	Australian Olive Association Ltd <b>ABN:</b> 57 072 977 489
<b>Address:</b>	PO Box 134, (137 Adelaide Road) Murray Bridge, S.A. 5253
<b>Phone:</b>	+61 8 8535 7170 <b>Fax:</b>
<b>Email:</b>	ceo@australianolives.com.au

### SAMPLES

Number:	8	Date sampled:	02/09/2011
Type:	Olive oil	Date received:	02/09/2011
Sampling:	The laboratory is not responsible for the sampling. The samples are analysed as received.		

### SAMPLE REFERENCES

Identification of sample	Laboratory reference code	Identification of sample	Laboratory reference code
Homebrand Extra Light	11/654-01	Bertolli Pure olive oil	11/654-05
Lupi Extra Light	11/654-02	Carbonell Olive Oil	11/654-06
Moro Extra Light	11/654-03	Lupi Olive Oil	11/654-07
Moro Puro Olive Oil	11/654-04	Always Fresh Olive Oil	11/654-08



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AOA Accredited  
Laboratory

AOCS Approved chemist



## RESULTS

### Quality parameters

Lab ref	FFA	PV	K232	K270	Δ K	IND
11/654-01	0.27	2.48	1.695	0.336	0.006	16.9
11/654-02	0.06	4.06	2.037	0.536	0.021	10.0
11/654-03	0.16	3.34	2.180	0.517	0.020	3.6
11/654-04	0.16	4.15	2.208	0.469	0.016	14.3
11/654-05	0.12	4.17	2.098	0.573	0.024	8.2
11/654-06	0.11	4.30	2.432	0.411	0.008	19.7
11/654-07	0.14	4.67	2.372	0.722	0.030	12.2
11/654-08	0.23	4.70	2.264	0.455	0.012	12.2
AS 5264 limits	≤ 1.0	≤ 15.0	-	≤ 0.90	≤ /0.15/	-

### Organoleptic assessment

Lab ref	Defects	Fruitiness	Bitterness	Pungency	Classification
11/654-01	4.00*	2.00	1.00	1.00	
11/654-02	3.00*	2.50	1.00	1.00	
11/654-03	1.00*	3.75	1.00	1.00	
11/654-04	1.00*	3.50	1.00	1.00	
11/654-05	2.00*	3.00	1.00	1.00	
11/654-06	1.00*	3.50	1.50	1.50	
11/654-07	3.00*	2.00	1.00	1.00	
11/654-08	2.00*	2.50	1.00	1.00	

AS 5264 limits	0.0 < Md ≤ 2.5	Mf > 0.0			Olive Oil- Composed of Refined and Virgin (or Extra virgin) Olive Oil
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Defect: \* Rancid



Claudia Guillaume  
Laboratory Manager

## ANALYSIS REQUIRED, METHODS, UNITS AND UNCERTAINTY.

Description	Ref	Method used	Results, units reported as	U*
(*) Free fatty acids	FFA	AOCS Ca 5a-40	g % of oleic acid	0.02
(*) Peroxides value	PV	AOCS Cd 8-53	meq O <sub>2</sub> / kg oil	0.52
(*) UV coefficients	UV	AOCS Ch 5-91	Extinction at 232nm and 270nm	0.03; 0.02; 0.00
(*) Induction time	IND	AOCS Cd 12b-92	Hours at 110°C	1.42
(*) Panel Test	PAT	IOOC/T.20/N#15	Scale: 0 – 10	-

(\*)NATA accreditation covers the performance of these tests.

\* The uncertainty (U) is an expanded uncertainty using a coverage factor of 2, which gives a level of confidence of approximately 95%.

Ref: Australian Standards AS 5264-2011® limits are only for Olive Oil- Composed of Refined and Virgin (or Extra virgin) Olive Oil category.

Please note that the underlined results are outside the limit for the category.

**Note 1:** Median of the defects (Md) means the median of the defect that is perceived with the strongest intensity. The value of the coefficient of variation for this defect shall be less than or equal to 20%.

**NOTES:** This report is only valid for the samples detailed above. This report shall not be reproduced except in full, without approval of the laboratory.

Test results and findings may be provided to authorised staff and used for statistical and certification purposes in accordance with company policies. The source of the information will remain confidential unless otherwise required by Law or regulatory policies.

Report Date: 09/09/2011

## Analysis Report N<sup>o</sup> 11/655

Submitter Details	
<b>Name:</b>	
<b>Company:</b>	Australian Olive Association Ltd <b>ABN:</b> 57 072 977 489
<b>Address:</b>	PO Box 134, (137 Adelaide Road) Murray Bridge, S.A. 5253
<b>Phone:</b>	+61 8 8535 7170 <b>Fax:</b>
<b>Email:</b>	ceo@australianolives.com.au

### SAMPLES

Number:	<b>22</b>	Date sampled:	<b>02/09/2011</b>
Type:	<b>Extra Virgin Olive oil</b>	Date received:	<b>02/09/2011</b>
Sampling:	The laboratory is not responsible for the sampling. The samples are analysed as received.		

### SAMPLE REFERENCES

Identification of sample	Laboratory reference code	Identification of sample	Laboratory reference code
Aigeon Oil	11/655-01	Moro	11/655-12
Always fresh Australian	11/655-02	Olio - Mild & Mellow	11/655-13
Bertolli - Fruity taste	11/655-03	Red Island	11/655-14
Cobram Estate - delicate	11/655-04	The Olive Tree - delicate	11/655-15
Cobram Estate - robust	11/655-05	The Olive Tree - fresh and fruity flavours	11/655-16
Coles	11/655-06	Viva - late harvest	11/655-17
Coles	11/655-07	Woolworths Select	11/655-18
Woolworths - Homebrand	11/655-08	Zafarelli	11/655-19
IGA Signature	11/655-09	Romanela	11/655-20
Jingilli	11/655-10	Manzanillo Grove	11/655-21
Lupi - Fruity Taste	11/655-11	Lighthouse	11/655-22



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AOA Accredited  
Laboratory

AOCS Approved chemist



## RESULTS

### Quality parameters

Lab ref	FFA	PV	K232	K270	Δ K
11/655-01	0.28	8.83	<u>2.873</u>	0.206	0.006
11/655-02	0.35	9.33	<u>2.639</u>	0.176	0.004
11/655-03	0.29	7.55	2.348	0.212	0.005
11/655-04	0.15	5.64	1.606	0.103	0.001
11/655-05	0.15	4.05	1.355	0.097	-0.001
11/655-06	0.29	8.49	1.752	0.123	0.000
11/655-07	0.38	7.71	1.800	0.142	0.002
11/655-08	0.27	6.66	1.830	0.156	-0.002
11/655-09	0.31	6.75	1.857	0.143	0.000
11/655-10	0.22	9.09	1.769	0.138	0.002
11/655-11	0.39	5.96	2.226	<u>0.342</u>	0.010
11/655-12	0.33	7.94	2.145	0.211	0.004
11/655-13	0.35	9.02	1.979	0.144	0.001
11/655-14	0.68	3.51	1.487	0.138	-0.001
11/655-15	0.26	4.77	1.640	0.128	0.001
11/655-16	0.23	4.22	1.529	0.119	-0.001
11/655-17	0.17	5.06	1.733	0.154	-0.001
11/655-18	0.14	4.69	1.708	0.148	0.001
11/655-19	<u>0.94</u>	7.66	2.033	0.184	0.005
11/655-20	<u>1.45</u>	5.27	2.320	<u>0.379</u>	0.012
11/655-21	0.20	3.44	1.752	0.166	0.000
11/655-22	0.13	4.18	1.678	0.122	0.000
AS 5264 limits	≤ 0.8	≤ 20.0	≤ 2.50	≤ 0.22	≤ /0.01/

# modern olives laboratory services

PO BOX 92 LARA VIC 3212 TEL: 03 5272 9570 FAX: 03 5272 9599 EMAIL: lab@modernolives.com.au



Lab ref	IND	PPP	DAG
11/655-01	15.53	<u>48.11</u>	<u>34.00</u>
11/655-02	10.09	<u>24.56</u>	<u>30.57</u>
11/655-03	12.88	15.07	44.09
11/655-04	23.83	0.97	90.24
11/655-05	41.43	0.85	92.64
11/655-06	38.32	<u>20.34</u>	58.34
11/655-07	23.77	8.42	43.77
11/655-08	36.64	<u>20.04</u>	55.14
11/655-09	21.98	8.16	49.00
11/655-10	16.89	1.87	84.92
11/655-11	12.24	6.06	51.37
11/655-12	22.77	<u>24.10</u>	36.04
11/655-13	13.74	7.48	46.68
11/655-14	41.15	1.26	67.80
11/655-15	22.46	3.07	67.31
11/655-16	36.66	0.76	88.46
11/655-17	19.44	0.64	92.27
11/655-18	21.89	0.69	94.07
11/655-19	27.23	7.91	<u>31.11</u>
11/655-20	2.29	<u>25.45</u>	<u>27.27</u>
11/655-21	45.63	3.76	81.02
11/655-22	20.87	4.04	87.10
AS 5264 limits	-	≤ 17	≥ 35

## Organoleptic assessment

Lab ref	Defects	Fruitiness	Bitterness	Pungency	Classification
11/655-01	<u>2.75</u> <sup>1</sup>	4.00	1.50	1.50	Lampante
11/655-02	<u>1.25</u> <sup>1</sup>	4.00	1.00	1.25	VOO
11/655-03	<u>3.00</u> <sup>2</sup>	3.75	1.00	1.50	Lampante
11/655-04	0.00	5.50	2.00	2.50	EVOO
11/655-05	0.00	5.00	3.00	3.50	EVOO
11/655-06	<u>1.00</u> <sup>1</sup>	4.00	3.00	3.50	VOO
11/655-07	0.00	5.00	2.00	3.00	EVOO
11/655-08	0.00	5.00	3.50	3.25	EVOO
11/655-09	0.00	5.00	2.75	3.00	EVOO
11/655-10	<u>1.50</u> <sup>1</sup>	4.50	3.00	3.00	VOO
11/655-11	<u>1.00</u> <sup>1</sup>	4.50	2.00	2.00	VOO
11/655-12	0.00	5.00	2.25	2.50	EVOO
11/655-13	0.00	3.00	1.00	2.25	EVOO
11/655-14	0.00	5.00	3.00	4.25	EVOO
11/655-15	0.00	5.50	2.00	2.50	EVOO
11/655-16	0.00	5.00	3.00	3.50	EVOO
11/655-17	0.00	5.00	2.00	3.00	EVOO
11/655-18	0.00	5.00	2.00	2.50	EVOO
11/655-19	<u>2.00</u> <sup>3</sup>	4.00	2.00	2.50	VOO
11/655-20	<u>3.00</u> <sup>2</sup>	3.00	1.00	2.00	Lampante
11/655-21	0.00	5.00	5.00	5.00	EVOO
11/655-22	0.00	5.00	1.50	2.50	EVOO

AS 5264 limits	Md = 0.0	Mf > 0.0			EVOO
	0.0 < Md ≤ 2.5	Mf > 0.0			VOO
	Md > 2.5	-			Lampante

Defects: <sup>1</sup> Rancid. <sup>2</sup> Futy. <sup>3</sup> Musty/Humid



Claudia Guillaume  
Laboratory Manager

## ANALYSIS REQUIRED, METHODS, LIMIT OF REPORTING AND UNITS.

Description	Ref	Method used	Results, units reported as	U*
(*) Free fatty acids	FFA	AOCS Ca 5a-40	g % of oleic acid	0.02
(*) Peroxides value	PV	AOCS Cd 8-53	meq O <sub>2</sub> / kg oil	0.52
(*) UV coefficients	UV	AOCS Ch 5-91	Extinction at 232nm and 270nm	0.03; 0.02; 0.00
(*) Induction time	IND	AOCS Cd 12b-92	Hours at 110°C	1.42
(*) Panel Test	PAT	IOOC/T.20/N°15	Scale: 0 – 10	-
(*) Pyropheophytins A	PPP	ISO 29841	%	0.33
(*) 1,2 Diacylglycerols	DAG	ISO 29822	%	1.15

(\*)NATA accreditation covers the performance of these tests.

\* The uncertainty (U) is an expanded uncertainty using a coverage factor of 2, which gives a level of confidence of approximately 95%.

Ref: Australian Standard® 5264-2011 limits are only for Extra Virgin olive oil category.

Please note that the underline results are outside the limits for the category.

**Note 1:** Median of the defects (Md) means the median of the defect that is perceived with the strongest intensity. The value of the coefficient of variation for this defect shall be less than or equal to 20%.

**NOTES:** This report is only valid for the samples detailed above. This report shall not be reproduced except in full, without approval of the laboratory.

Test results and findings may be provided to authorised staff and used for statistical and certification purposes in accordance with company policies. The source of the information will remain confidential unless otherwise required by Law or regulatory policies.