

AOF Test Check Program Bimonthly Report Round 2 March – 2016

Result Receival Dates

Lab Code	Date
Α	31/03/2016
В	
С	31/03/2016
D	31/03/2016
E	
F	31/03/2016
G	
Н	11/03/2016
I	09/03/2016
J	09/03/2016
K	09/03/2016
L	30/03/2016
M	23/03/2016
N	
0	16/03/2016
Q	31/03/2016
R	01/04/2016
S	23/03/2016

Discussion of Results

Test Weight

Sample 1 – No outliers were observed for this test.

Sample 2 – One outlier was identified for Lab **E** with a 0.43 kg/hL discrepancy from the lower quartile limit (67.03 kg/hL).

Sample 3 – No outliers were observed for this test.



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Impurities

- Sample 1 Outliers were identified for Lab **A, F, O** and **Q**. Lab **A, F**, and **O** were 0.05, 0.05, and 0.11 of a percent discrepancy, respectively, from the lower quartile limit (0.61%). Lab **Q** was 0.41 of a percent discrepancy from the upper quartile limit (0.85%).
- Sample 2 Outliers were identified for Lab **A**, **H** and **S**. Lab **H** was 0.51 of a percent discrepancy from the upper quartile limit while Lab **A** published results at the limit of 2.15%. Lab **S** was 0.60 of a percent discrepancy from the lower quartile limit (0.63%).
- Sample 3 One outlier was identified for Lab **D** was 0.23 of a percent discrepancy from the lower quartile limit (0.58%).

Oil Rapid

- Sample 1 One outlier was identified for Lab **E** with a 0.23 of a percent discrepancy from the upper quartile limit (47.92%).
- Sample 2 No outliers were observed for this test.
- Sample 3 Outliers were identified for Lab **E** and **I** at 0.56 and 0.11 of a percent, respectively, from the upper quartile limit (45.40%).

Results published by laboratories **E** and **I** displaying outlying data were still within result parameters of the solvent extraction results at 95% confidence.

Oil Solvent Extraction

No outliers were observed for this test.

Standard deviation of each test was within the reproducibility for ISO659:2009. 5 of the 7 labs were participating within protocol guidelines outlined by the ISO659:2009. Removal of results submitted by laboratories not participating at the capacity encompassed by the method protocol has an increasing effect on the mean results of between 0.11 to 0.25% and a decrease in variability.

Results submitted by the laboratories not participating within the method outline would not significantly differ from the results statistically should their results be compared with the resultant mean and deviation after these results are discluded.



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Moisture Oven

- Sample 1 One outlier was identified for Lab **M** with a 0.43 of a percent discrepancy from the lower quartile limit (4.75%).
- Sample 2 One outlier was identified for Lab **M** with a 0.43 of a percent discrepancy from the lower quartile limit (5.87%).
- Sample 3 One outlier was identified for Lab **M** with a 0.42 of a percent discrepancy from the lower quartile limit (5.34%).

Moisture Rapid

- Sample 1 No outliers were observed for this test.
- Sample 2 Outliers were identified for Lab **E** and **S** at 0.09 and 0.24 of a percent, respectively, from the upper quartile limit (6.66%).
- Sample 3 No outliers were observed for this test.

Oleic acid

No outliers were observed for this test.

Linoleic acid

No outliers were observed for this test.

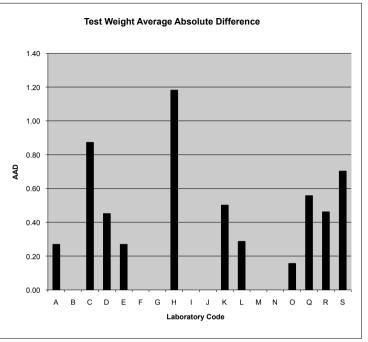
Linolenic acid

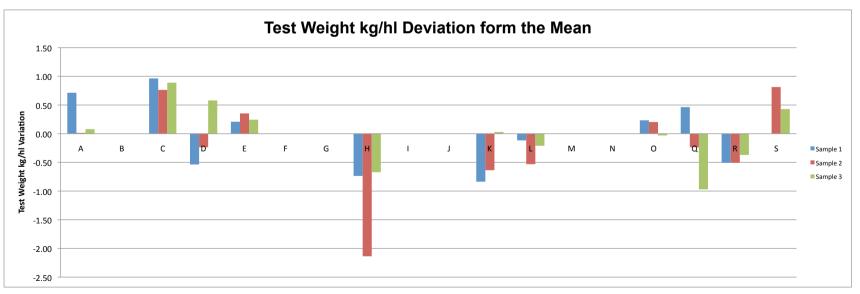
- Sample 1 No outliers were observed for this test.
- Sample 2 One outlier was identified for Lab **M** with a 0.10 of a percent discrepancy from the upper quartile limit (9.05%).
- Sample 3 No outliers were observed for this test.

Free Fatty Acid

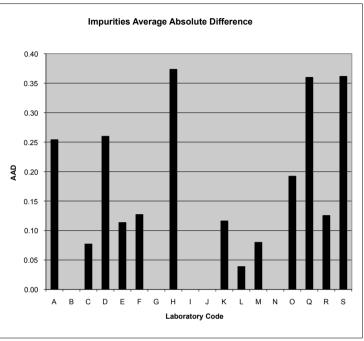
- Sample 1 No outliers were observed for this test.
- Sample 2 No outliers were observed for this test.
- Sample 3 One outlier was identified for Lab **M** with a 0.04 of a percent discrepancy from the upper quartile limit (0.75%).

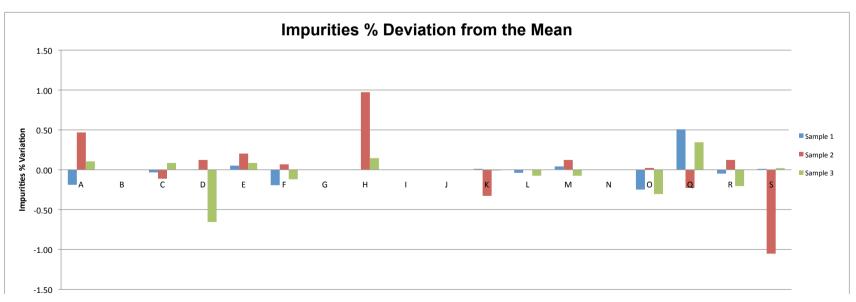
								<u>.</u>
			T	est Weight	kg/hl			
	Samp	le 1	Sam	ple 2	San	ple 3	Mean of	Average Absolute
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Differences	Difference
Α	68.25	0.71	68.75	0.01	66.75	0.08	0.27	0.27
В								
С	68.50	0.96	69.50	0.76	67.56	0.89	0.87	0.87
D	67.00	-0.54	68.50	-0.24	67.25	0.58	-0.06	0.45
Е	67.75	0.21	69.09	0.35	66.92	0.24	0.27	0.27
F								
G								
Н	66.80	-0.74	66.60	-2.14	66.00	-0.67	-1.18	1.18
1								
J								
K	66.70	-0.84	68.10	-0.64	66.70	0.03	-0.48	0.50
L	67.42	-0.12	68.21	-0.53	66.46	-0.21	-0.29	0.29
M								
N								
0	67.77	0.23	68.94	0.20	66.64	-0.03	0.14	0.16
Q	68.00	0.46	68.50	-0.24	65.70	-0.97	-0.25	0.56
R	67.03	-0.51	68.23	-0.51	66.30	-0.37	-0.46	0.46
S	67.54	0.00	69.55	0.81	67.10	0.43	0.70	0.70
MEAN	67.54		68.74		66.67			0.52
STDEV	0.65]	0.52		0.54			



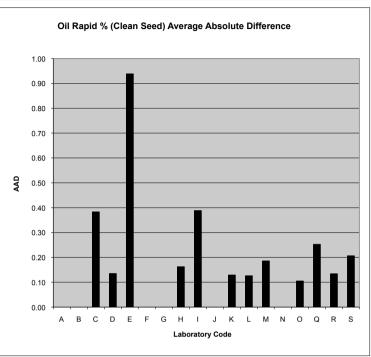


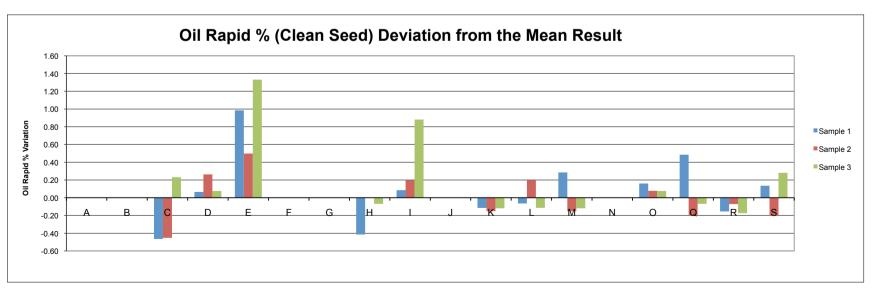
				Impurities	s %			
	Sampl	le 1	Sam	ple 2		ple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	0.56	-0.19	2.15	0.47	1.11	0.11	0.13	0.25
В								
С	0.72	-0.03	1.57	-0.11	1.09	0.09	-0.02	0.08
D	0.75	0.00	1.80	0.12	0.35	-0.65	-0.18	0.26
E	0.80	0.05	1.88	0.20	1.09	0.09	0.11	0.11
F	0.56	-0.19	1.75	0.07	0.89	-0.12	-0.08	0.13
G								
Н	0.75	0.00	2.65	0.97	1.15	0.15	0.37	0.37
ı								
J								
K	0.76	0.01	1.35	-0.33	1.00	-0.01	-0.11	0.12
L	0.71	-0.04	1.68	0.00	0.93	-0.07	-0.04	0.04
M	0.79	0.04	1.80	0.12	0.93	-0.07	0.03	0.08
N								
0	0.50	-0.25	1.70	0.02	0.70	-0.30	-0.18	0.19
Q	1.26	0.51	1.45	-0.23	1.35	0.35	0.21	0.36
R	0.70	-0.05	1.80	0.12	0.80	-0.20	-0.04	0.13
S	0.76	0.01	0.63	-1.05	1.03	0.02	-0.34	0.36
MEAN	0.75		1.68		1.00			0.19
STDEV	0.03		0.17		0.17			



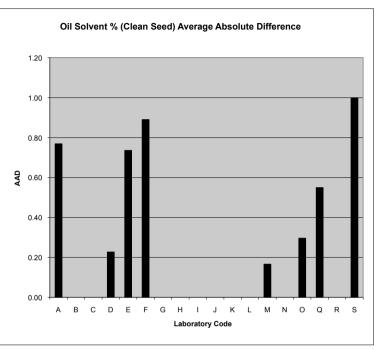


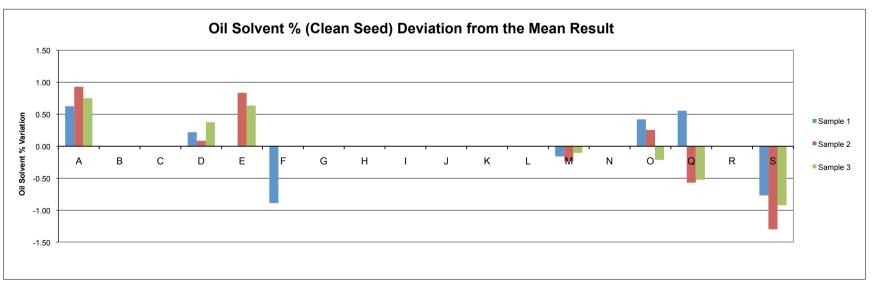
		Oil Rapi	d % (Clea	n Seed) De	viation fro	om the Mea	n	
	Samp	ole 1	Sam	Sample 2		ple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α								
В								
С	46.70	-0.46	41.70	-0.45	44.85	0.23	-0.23	0.38
D	47.23	0.07	42.42	0.26	44.70	0.08	0.13	0.13
Е	48.15	0.99	42.65	0.50	45.95	1.33	0.94	0.94
F								
G								
Н	46.75	-0.41	42.15	0.00	44.55	-0.07	-0.16	0.16
	47.25	0.09	42.35	0.20	45.50	0.88	0.39	0.39
J								
K	47.05	-0.11	42.00	-0.15	44.50	-0.12	-0.13	0.13
L	47.10	-0.06	42.35	0.20	44.51	-0.11	0.01	0.13
М	47.45	0.29	42.00	-0.15	44.50	-0.12	0.00	0.19
N								
0	47.33	0.16	42.23	0.08	44.70	0.08	0.10	0.10
Q	47.65	0.49	41.95	-0.20	44.55	-0.07	0.07	0.25
R	47.01	-0.15	42.08	-0.07	44.45	-0.17	-0.13	0.13
S	47.30	0.14	41.95	-0.20	44.90	0.28	0.07	0.21
MEAN	47.17		42.15		44.62			0.26
STDEV	0.28		0.26		0.16			



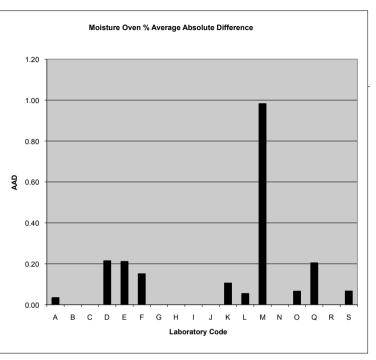


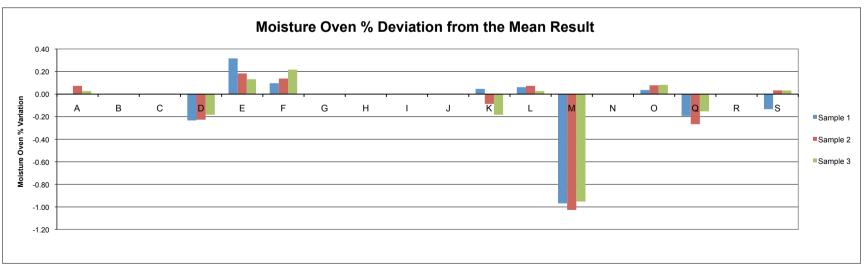
		Oil Solve	nt % (Cle	an Seed) D	eviation f	rom the Mea	an	
	Samp		•	ple 2		nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	47.10	0.63	43.18	0.93	45.88	0.75	0.77	0.77
В								
С								
D	46.69	0.22	42.34	0.09	45.50	0.38	0.23	0.23
Е			43.09	0.84	45.76	0.64	0.74	0.74
F	45.58	-0.89					-0.89	0.89
G								
Н								
J								
K								
L								
M	46.31	-0.16	42.02	-0.23	45.02	-0.10	-0.17	0.17
N								
0	46.89	0.42	42.51	0.26	44.91	-0.21	0.15	0.30
Q	47.03	0.56	41.68	-0.57	44.60	-0.52	-0.18	0.55
R								
S	45.70	-0.77	40.95	-1.30	44.20	-0.92	-1.00	1.00
MEAN	46.47		42.25		45.12		<u></u>	0.58
STDEV	0.62]	0.79]	0.62]		



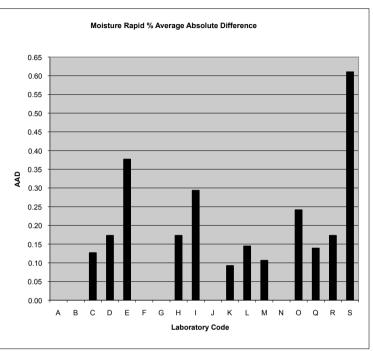


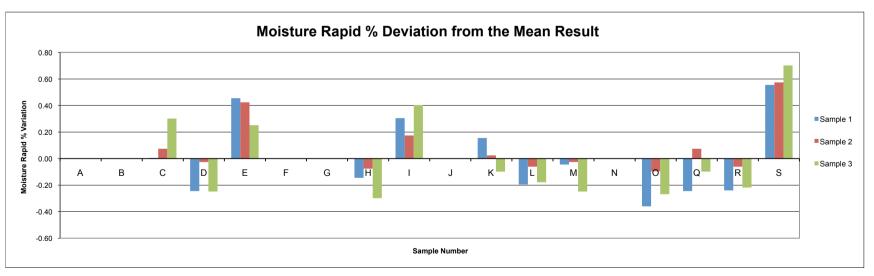
		Mois	ture Ove	n % Deviat	ion from t	he Mean		
	Samp	ole 1	Sam	ple 2	San	nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	5.29	0.00	6.54	0.07	5.90	0.03	0.03	0.03
В								
С								
D	5.05	-0.23	6.24	-0.23	5.69	-0.18	-0.21	0.21
E	5.60	0.32	6.65	0.18	6.00	0.13	0.21	0.21
F	5.38	0.10	6.61	0.14	6.09	0.22	0.15	0.15
G								
Н								
1								
J								
K	5.33	0.05	6.38	-0.09	5.69	-0.18	-0.07	0.11
L	5.35	0.06	6.54	0.07	5.90	0.03	0.05	0.05
M	4.32	-0.97	5.44	-1.03	4.92	-0.95	-0.98	0.98
N								
0	5.32	0.04	6.55	0.08	5.95	0.08	0.07	0.07
Q	5.09	-0.19	6.20	-0.27	5.72	-0.15	-0.20	0.20
R								
S	5.15	-0.13	6.50	0.03	5.90	0.03	-0.02	0.07
MEAN	5.28		6.47		5.87			0.21
STDEV	0.17		0.16		0.14			·



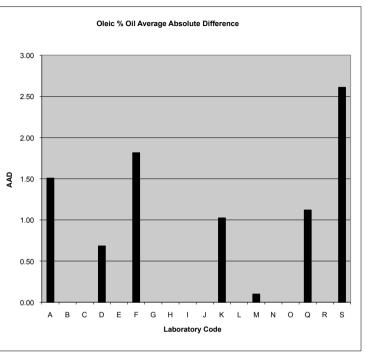


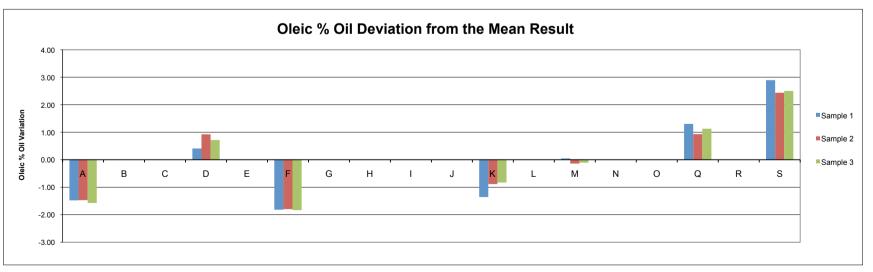
		Mois	ture Rapi	d % Deviat	ion from	the Mean		
	Samp	ole 1	Sam	ple 2	San	nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α								
В								
С	5.05	0.00	6.40	0.07	6.05	0.30	0.13	0.13
D	4.80	-0.25	6.30	-0.03	5.50	-0.25	-0.17	0.17
Е	5.50	0.45	6.75	0.42	6.00	0.25	0.38	0.38
F								
G								
Н	4.90	-0.15	6.25	-0.08	5.45	-0.30	-0.17	0.17
ı	5.35	0.30	6.50	0.17	6.15	0.40	0.29	0.29
J								
K	5.20	0.15	6.35	0.02	5.65	-0.10	0.03	0.09
L	4.85	-0.20	6.27	-0.06	5.57	-0.18	-0.14	0.14
M	5.00	-0.05	6.30	-0.03	5.50	-0.25	-0.11	0.11
N								
0	4.69	-0.36	6.23	-0.10	5.48	-0.27	-0.24	0.24
Q	4.80	-0.25	6.40	0.07	5.65	-0.10	-0.09	0.14
R	4.81	-0.24	6.27	-0.06	5.53	-0.22	-0.17	0.17
S	5.60	0.55	6.90	0.57	6.45	0.70	0.61	0.61
MEAN	5.05		6.33		5.75			0.22
STDEV	0.30		0.09		0.33			



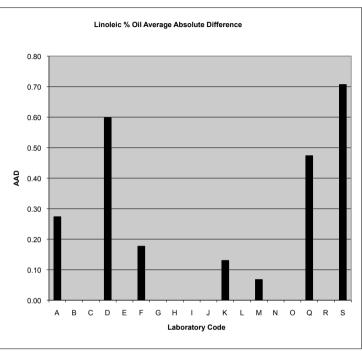


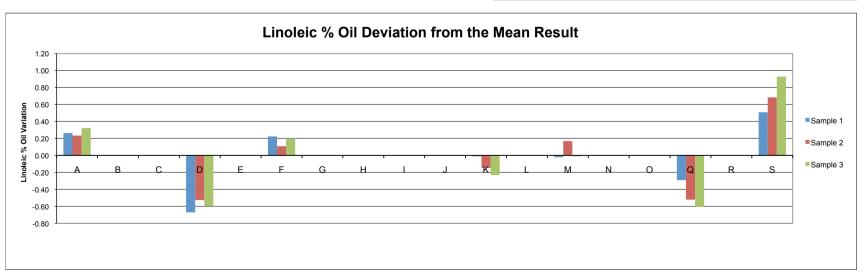
			leic <mark>%</mark> Oi	I Deviation	from the	Mean		
	Sam	ple 1	Sam	ple 2	San	nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	70.28	-1.48	61.95	-1.47	61.58	-1.57	-1.51	1.51
В								
С								
D	72.17	0.41	64.34	0.93	63.87	0.72	0.68	0.68
E								
F	69.94	-1.82	61.62	-1.80	61.32	-1.83	-1.82	1.82
G								
Н								
ı								
J								
K	70.40	-1.36	62.53	-0.88	62.32	-0.83	-1.02	1.02
L								
M	71.81	0.05	63.28	-0.14	63.04	-0.11	-0.07	0.10
N								
0								
Q	73.06	1.30	64.35	0.93	64.28	1.13	1.12	1.12
R								
S	74.65	2.89	65.85	2.44	65.65	2.50	2.61	2.61
MEAN	71.76		63.42		63.15			1.27
STDEV	1.71		1.52	1	1.53			



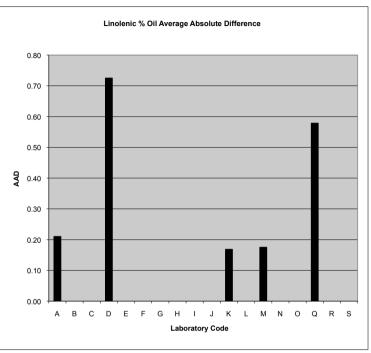


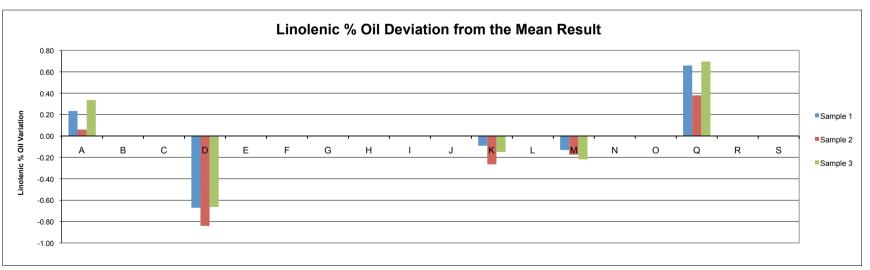
		Lir	noleic % (Dil Deviatio	n from the	e Mean		
	Samı	ple 1	Sam	ple 2	San	nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	13.91	0.26	19.00	0.23	20.65	0.32	0.27	0.27
В								
С								
D	12.97	-0.67	18.24	-0.53	19.73	-0.60	-0.60	0.60
E								
F	13.87	0.22	18.88	0.11	20.52	0.20	0.18	0.18
G								
н								
J								
K	13.63	-0.01	18.62	-0.15	20.09	-0.23	-0.13	0.13
L								
M	13.62	-0.02	18.94	0.17	20.31	-0.01	0.04	0.07
N								
0								
Q	13.35	-0.29	18.25	-0.52	19.72	-0.61	-0.47	0.47
R								
S	14.15	0.51	19.45	0.68	21.25	0.93	0.71	0.71
MEAN	13.64		18.77		20.32			0.35
STDEV	0.39		0.43		0.55			





		Lin	olenic %	Oil Deviation	on from th	e Mean		
	Samp	le 1	Sam	ple 2	San	nple 3		Average
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean	Mean of Differences	Absolute Difference
Α	7.08	0.23	9.85	0.06	9.93	0.34	0.21	0.21
В								
С								
D	6.17	-0.67	8.95	-0.84	8.93	-0.66	-0.73	0.73
Е								
F								
G								
Н								
ı								
J								
K	6.75	-0.09	9.53	-0.26	9.45	-0.15	-0.17	0.17
L								
М	6.71	-0.13	9.62	-0.18	9.38	-0.22	-0.18	0.18
N								
0								
Q	7.50	0.66	10.17	0.38	10.29	0.70	0.58	0.58
R								
S								
MEAN	6.84]	9.79		9.59			0.37
STDEV	0.49		0.29		0.53			





Free Fatty Acid % Oil Deviation from the Mean									
	Sample 1	Sample 2	Sample 3	Mean of	Absolute				