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Grain Quality and Biochemistry  
Progress Report-4/87

**Analyses  
of Groundnut Germplasm Accessions  
for their Oil, Protein,  
and Moisture Contents**

**Report No.2**

**(January - December 1986)**



**ICRISAT**

**International Crops Research Institute for the Semi-Arid Tropics  
Patancheru, Andhra Pradesh 502 324, India**

**GRAIN QUALITY AND BIOCHEMISTRY  
PROGRESS REPORT-4/87**

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## Foreword

This detailed report has been prepared to share the results of analyses of groundnut germplasm accessions with other scientists having an interest in groundnut improvement. Our Unit has closely collaborated with the Genetic Resources Unit in carrying out the analyses.

THIS IS NOT AN OFFICIAL PUBLICATION OF ICRISAT AND  
SHOULD NOT BE CITED.

R. Jambunathan  
1987

## GRAIN QUALITY AND BIOCHEMISTRY

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## I. INTRODUCTION

Oil continues to be in great demand and there is an urgent need to improve and stabilize the production of groundnut in the semi-arid tropical regions as groundnut is one of the important oil seed crop in these areas. We continued to analyze the groundnut germplasm accessions supplied by our Genetic Resources Unit in order to determine the variability in the oil content in our germplasm collection. In an earlier report (Grain Quality and Biochemistry - Progress Report 1/86) we have included the data obtained on 5913 germplasm accessions which were analyzed for their oil, protein and moisture contents. In this document, results of analyses of 928 germplasm accessions for their oil, protein and moisture contents are reported.

## II. METHODOLOGY

### 1. Oil determination :

**A. Nuclear Magnetic Resonance (NMR) Spectrometry Method :** The method as described in our earlier report (Progress Report 1/86) and in the publication (Jambunathan et al. 1985) was followed for oil determination.

**B. Soxhlet method :** We have carried out this method as described in our earlier report (Progress Report 1/86). Based on NMR values, high and low oil containing cultivars and random samples received for routine analysis were analyzed for their oil content by the soxhlet method and the relationship between the soxhlet and NMR values for oil content was checked.

## 2. Protein determination :

A. Technicon Auto Analyzer (TAA) Method : Crude protein (N x 5.46) was determined on whole ground (undefatted) groundnut samples by the Technicon auto analyser method (Singh and Jambunathan, 1980). A Krups blender was used to grind the sample.

3. Moisture : Moisture content was determined by drying the samples at 110°C for 16 hours in a forced draft oven.

## III. RESULTS

Ranges and means of oil, protein and moisture contents in the 928 germplasm accessions are given in Table 1. A significant and positive correlation ( $r = 0.94$ ,  $P < 0.01$ ) was obtained when the oil values obtained on 58 samples by both NMR and soxhlet methods were compared with each other. The correlation between NMR oil values and protein percent (undefatted) was significant but negative ( $r = -0.24$ ,  $P < 0.01$ ) when the data obtained on 928 samples were compared. In figures 1-3, the frequency distribution for oil, protein and moisture contents for the germplasm accessions are given. Results of analysis of individual germplasm accessions are given in the Appendix under the following headings : ICG number, Laboratory number, Oil % (NMR), protein % (N x 5.46) undefatted, Moisture %, and Oil % (soxhlet method).



Table 1. Ranges and means of oil, protein and moisture values in groundnut germplasm accessions\*

Constituents	Minimum	Maximum	Mean	SD
Oil % (NMR)	38.2	53.9	45.6	2.1
Protein % (undefatted)	15.5	32.0	25.5	2.4
Moisture %	2.9	8.6	6.3	0.7

\* Number of germplasm accessions analyzed = 928

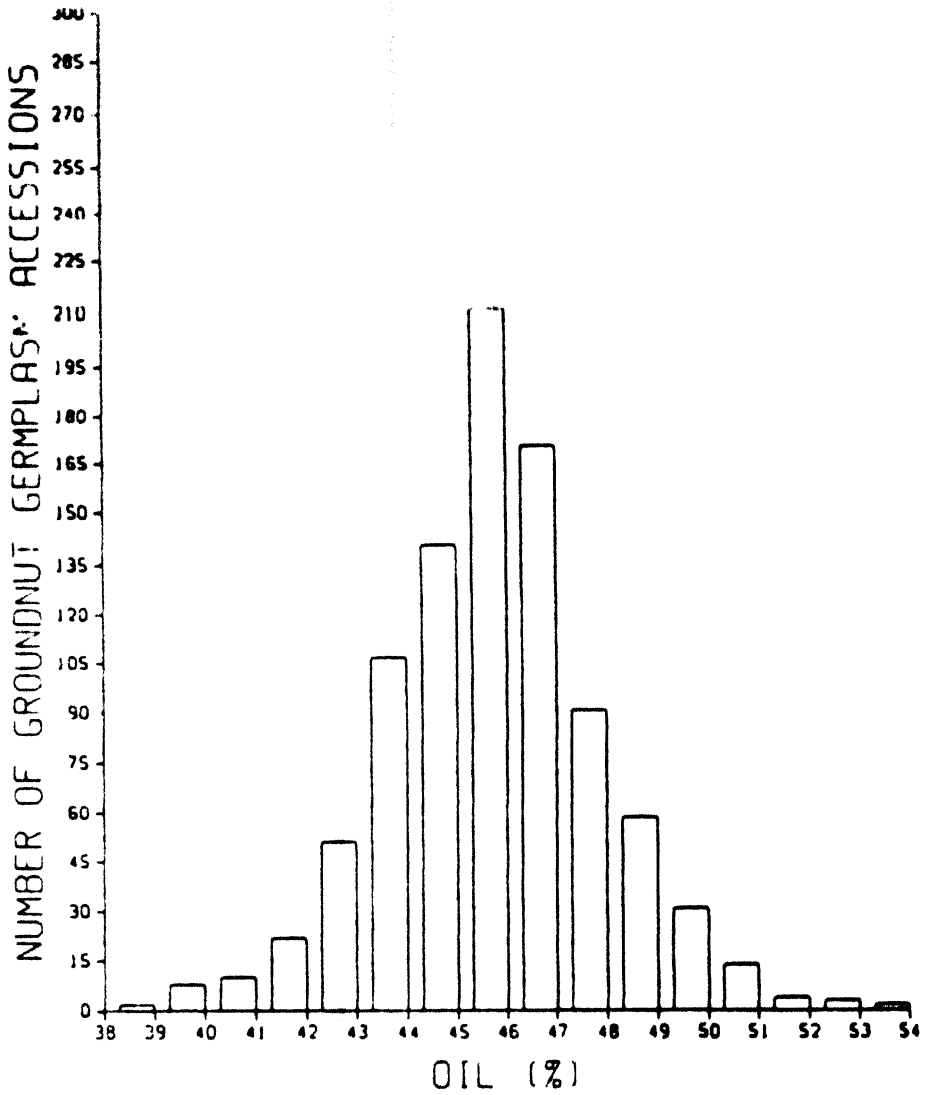


Fig. 1 : Distribution of oil content in groundnut germplasm accessions.

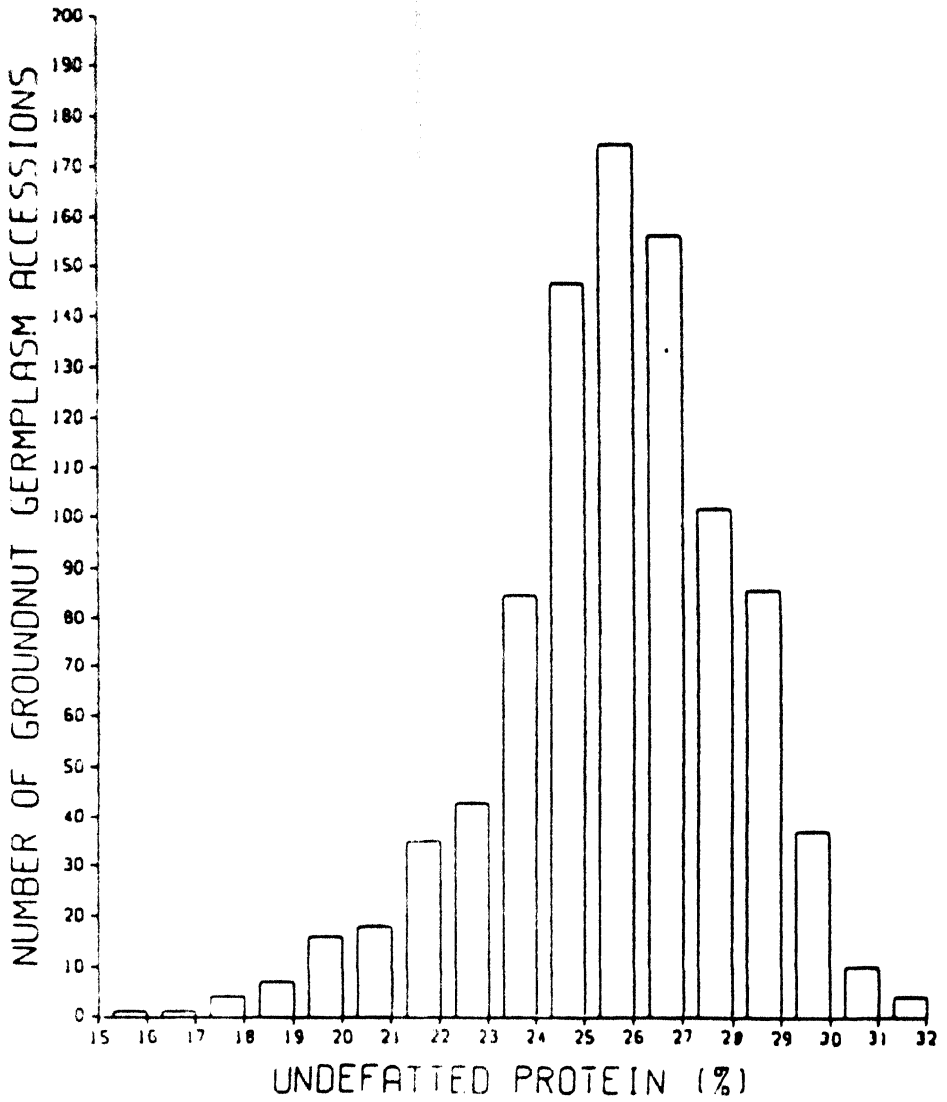


Fig. 2 : Distribution of protein content (determined on undefatted meal) in groundnut germplasm accessions.

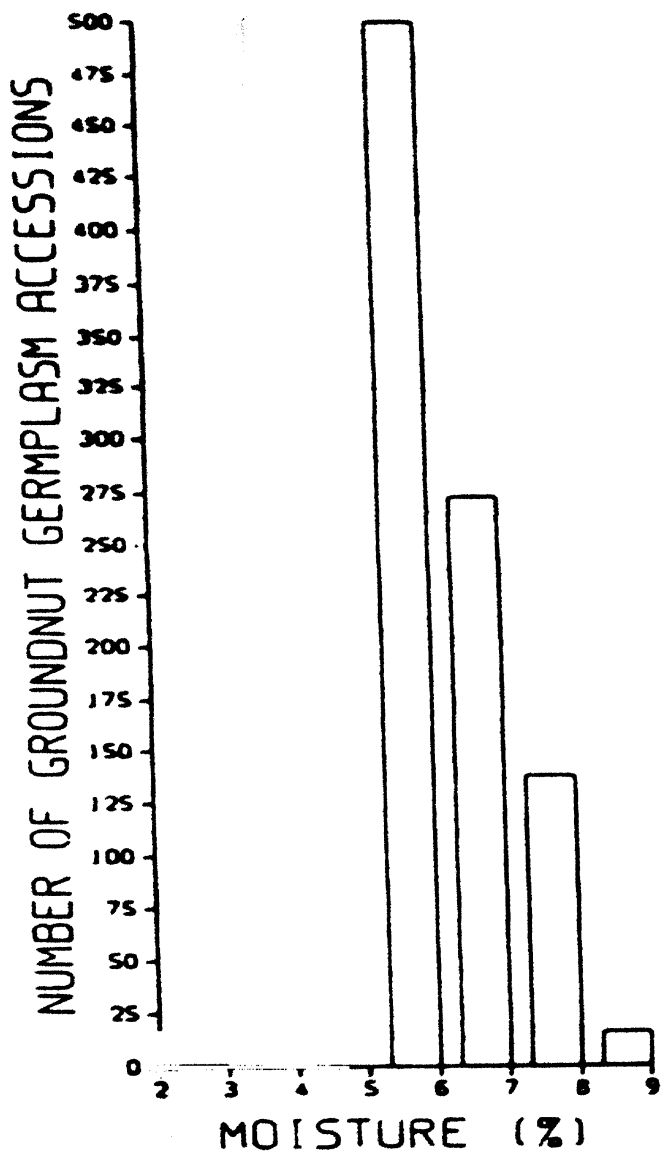


Fig. 3 : Distribution of moisture content in groundnut germplasm accessions.

### References

1. Jambunathan, R., Raju, S.N., and Barde, S.P. 1985. Analysis of oil content of groundnuts by nuclear magnetic resonance spectrometry. *Journal of the Science of Food and Agriculture* 36:162-166.
2. Singh, U., and Jambunathan, R. 1980. Estimation of rapid methods for the estimation of protein in chickpea (*Cicer arietinum* L.). *Journal of the Science of Food and Agriculture* 31:247-254.
3. Grain Quality and Biochemistry-Progress Report 1/86, 1986. Analyses of groundnut germplasm accessions for their oil, protein, and moisture contents. (May 1980 - December 1985), International Crops Research Institute for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India.

APPENDIX

Results of Analyses of Groundnut Germplasm Accessions for their Oil, Protein, and Moisture Contents

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Unfat (TAA)	Moisture	Oil (Soxhlet)
50	12479	46.4	17.0	7.6	---
75	12480	44.7	24.0	7.2	45.5
118	12481	46.3	26.2	7.0	---
127	12482	47.0	24.6	6.8	---
133	12483	44.1	24.9	7.2	---
137	12484	39.5	27.2	7.8	---
141	12485	43.5	25.1	7.0	---
195	12486	44.5	24.3	6.9	---
203	12487	46.1	25.4	7.0	---
212	12488	47.4	23.3	7.1	---
228	12489	50.6	21.8	6.6	50.3
233	12490	45.1	27.5	7.0	---
280	12491	48.5	24.8	6.5	---
298	12492	44.0	29.4	7.2	---
299	12493	45.9	21.5	7.3	---
331	12494	43.5	28.6	7.2	---
356	12495	43.2	27.3	7.4	---
381	12496	48.8	18.5	7.1	---
430	12497	45.8	26.3	7.2	---
471	12498	47.3	24.8	7.1	---
502	12499	45.1	23.6	7.0	---
537	12500	47.5	27.1	6.7	49.3
542	12501	46.1	24.2	6.4	---
565	12502	46.9	24.7	6.5	---
575	12503	45.4	24.6	6.8	---
582	12504	44.5	24.8	6.8	---
594	12505	47.1	26.0	6.2	---
601	12506	45.4	24.9	6.7	---
607	12507	44.9	24.0	6.7	---
624	12508	43.1	24.8	7.0	---
625	12509	47.9	24.5	6.4	---
629	12510	43.5	26.0	7.0	---
636	12511	46.4	27.0	6.6	---
643	12512	45.6	25.4	6.8	---
645	12513	45.7	25.8	6.8	---
693	12514	45.9	25.1	6.9	---
697	12515	44.8	25.4	7.1	---
720	12516	48.3	26.7	6.1	---
734	12517	44.6	25.0	6.8	---
787	12518	45.7	26.5	6.8	---
810	12519	40.2	23.8	7.4	---
813	12520	43.6	25.1	6.9	44.7
822	12521	47.0	18.8	6.9	---
824	12522	39.2	28.1	7.6	---
942	12523	44.1	23.9	6.9	---
946	12524	43.9	25.7	6.9	---
953	12525	45.7	26.1	6.6	---
961	12526	43.5	27.4	7.0	---
969	12527	44.8	24.4	6.8	---
980	12528	45.4	24.3	6.7	---
995	12529	45.5	24.6	6.9	---

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefatted (TAA)	Mois- ture	Oil (Soxhlet)
998	12530	46.0	24.8	6.9	---
1035	12531	44.2	26.0	7.2	---
1089	12532	45.1	26.0	7.1	---
1110	12533	43.0	24.5	7.5	---
1113	12534	44.2	28.7	6.9	---
1115	12535	48.9	20.8	6.7	---
1163	12536	46.7	22.9	7.3	---
1174	12537	46.4	25.5	6.9	---
1232	12538	46.9	19.8	6.8	---
1256	12539	50.6	23.2	6.6	51.5
1277	12540	48.1	26.3	6.5	48.7
1288	12541	44.4	26.6	6.8	---
1297	12542	45.0	25.6	7.1	---
1368	12543	47.9	24.4	6.7	---
1425	12544	46.2	25.5	6.8	---
1426	12545	45.0	28.3	6.7	---
1443	12546	48.0	23.8	6.6	---
1466	12547	44.5	28.3	6.9	---
1477	12548	47.1	25.0	6.8	---
1559	12549	44.1	22.8	8.0	---
1588	12550	45.1	26.0	7.3	---
1609	12551	44.6	24.7	7.5	---
1665	12552	46.2	27.9	7.0	---
1673	12553	44.8	27.1	7.0	---
1688	12554	46.6	26.5	6.8	---
1717	12555	47.1	19.7	7.4	---
1722	12556	47.0	25.1	7.0	---
1723	12557	47.1	25.9	7.1	---
1724	12558	45.5	24.4	7.2	---
1743	12559	45.7	25.4	7.2	---
1754	12560	45.5	28.1	7.0	47.5
1758	12561	48.2	19.7	7.3	---
1780	12562	46.6	25.3	7.1	---
1801	12563	44.0	26.9	7.5	---
1805	12564	45.3	28.6	7.4	---
1833	12565	44.7	21.9	8.0	---
1871	12566	39.3	26.6	8.8	---
1873	12567	47.2	23.5	7.0	---
1877	12568	46.5	25.2	7.2	---
1885	12569	45.4	26.7	7.2	---
1887	12570	43.6	28.5	7.3	---
1900	12571	46.4	24.1	7.2	---
1906	12572	41.1	27.1	7.9	---
1917	12572	46.8	23.6	7.0	---
1923	12574	50.5	20.0	6.6	52.3,
1926	12575	45.7	26.5	7.2	---
1932	12576	45.9	24.8	7.1	---
1966	12577	44.1	26.4	7.4	---
1977	12578	46.1	26.4	6.9	---
1982	12579	44.7	26.5	7.3	---
1986	12580	47.2	25.9	6.9	48.1

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefined (TAA)	Moisture	Oil (Soxhlet)
1993	12501	45.9	24.5	7.3	---
1997	12502	44.9	26.4	7.5	---
2038	12503	45.9	24.5	7.2	---
2072	12504	47.1	26.3	7.3	---
2073	12505	46.6	25.2	7.2	---
2095	12506	45.5	26.6	7.1	---
2110	12507	47.7	19.8	7.5	---
2117	12508	42.8	27.4	7.8	---
2221	12509	45.5	26.4	7.3	---
2293	12590	45.3	20.1	7.6	---
2299	12591	44.4	26.7	7.7	---
2301	12592	45.5	30.2	7.1	---
2312	12593	43.9	25.1	7.5	---
2353	12594	43.0	25.8	7.6	---
2379	12595	50.7	25.8	6.5	50.5
2410	12596	45.7	28.1	6.8	---
2411	12597	53.9	15.5	6.6	54.2
2417	12598	44.8	27.0	7.1	---
2423	12599	47.2	18.0	7.6	---
2432	12600	49.3	17.9	7.1	50.0
2435	12601	45.6	28.0	7.3	---
2462	12602	46.3	25.5	7.9	---
2463	12603	39.3	28.6	8.3	---
2510	12604	42.3	26.5	7.7	---
2534	12605	45.3	24.8	7.1	---
2539	12606	47.9	24.1	6.9	---
2574	12607	45.5	24.9	7.1	---
2604	12608	46.0	25.0	7.1	---
2621	12609	42.7	25.1	8.2	---
2628	12610	46.2	24.7	7.6	---
2632	12611	45.0	23.1	8.1	---
2643	12612	42.9	24.6	8.3	---
2645	12613	43.9	25.0	7.8	---
2646	12614	44.5	26.9	7.8	---
2649	12615	43.6	25.7	7.6	---
2660	12616	44.6	26.1	7.6	---
2667	12617	45.0	24.8	7.6	---
2668	12618	41.6	26.9	8.5	---
2672	12619	42.6	26.7	8.4	---
2676	12620	47.0	24.8	7.7	49.6
2683	12621	43.4	26.4	8.3	---
2686	12622	44.5	25.8	8.1	---
2687	12623	44.7	25.3	7.6	---
2690	12624	42.6	26.5	7.8	---
2697	12625	44.3	25.4	7.6	---
2702	12626	44.3	26.6	7.6	---
2705	12627	43.9	24.0	7.5	---
2713	12628	44.7	23.9	7.9	---
2719	12629	45.5	26.9	7.2	---
2726	12630	45.8	25.6	7.3	---
2728	12631	44.0	25.3	8.0	---



ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Moisture%	Oil% (Soxhlet)
2736	12632	43.1	23.6	7.7	---
2743	12633	46.2	24.9	7.4	---
2746	12634	43.9	25.8	7.5	---
2748	12635	43.1	27.2	7.5	---
2753	12636	44.9	23.7	7.4	---
2768	12637	44.1	26.3	7.6	---
2777	12638	45.1	26.2	7.5	---
2781	12639	45.5	25.2	7.6	---
2792	12640	43.1	25.8	8.3	43.8
2796	12641	47.2	25.7	7.3	---
2797	12642	46.5	25.1	7.1	---
2798	12643	44.2	26.2	7.2	---
2817	12644	43.4	25.0	7.6	---
2915	12645	44.8	25.2	7.2	---
2917	12646	46.1	25.5	7.1	---
2931	12647	44.5	26.3	7.3	---
2977	12648	43.2	22.0	8.4	---
2980	12649	44.2	20.8	8.0	---
2984	12650	46.6	25.1	7.4	---
3000	12651	45.1	25.6	7.6	---
3017	12652	48.7	26.1	7.1	---
3023	12653	46.0	19.8	7.8	---
3034	12654	47.0	21.1	7.6	---
3083	12655	44.8	26.3	7.5	---
3151	12656	48.6	19.7	7.1	---
3153	12657	45.3	27.0	7.3	---
3162	12658	44.7	25.7	7.6	---
3168	12659	47.9	22.7	7.6	---
3184	12660	45.8	25.8	7.7	45.9
3187	12661	46.3	25.4	7.6	---
3188	12662	46.4	27.6	7.5	---
3189	12663	45.5	25.0	7.4	---
3192	12664	45.6	27.8	7.5	---
3198	12665	45.5	27.7	7.5	---
3199	12666	43.9	29.1	7.7	---
3200	12667	45.7	25.3	7.6	---
3213	12668	45.4	26.6	7.7	---
3217	12669	44.2	28.1	7.9	---
3226	12670	49.4	20.3	7.4	---
3227	12671	44.3	25.2	7.8	---
3235	12672	42.7	24.1	8.4	---
3237	12673	45.9	19.9	8.1	---
3246	12674	42.8	27.3	8.1	---
3296	12675	42.9	30.4	7.9	---
3301	12676	43.8	29.4	7.6	---
3328	12677	45.2	27.1	7.6	---
3335	12678	46.8	20.4	7.7	---
3346	12679	42.7	24.5	8.3	---
3363	12680	44.3	28.6	7.8	43.9
3395	12681	44.1	28.4	7.9	---
3439	12682	43.5	27.2	8.3	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefined (TAA)	Moisture%	Oil% (Soxhlet)
4081	12379	44.8	29.6	6.3	---
4117	12380	47.7	28.3	5.9	47.9
4599	12381	45.6	27.6	6.0	---
4611	12382	45.6	28.3	6.0	---
4645	12383	47.4	28.8	5.9	---
4663	12384	45.6	26.7	6.0	---
4749	12385	48.2	25.9	5.8	---
4750	12386	45.5	29.2	6.1	---
5002	12387	41.0	29.0	6.5	---
5042	12388	49.5	26.9	5.7	---
5120	12389	47.8	25.2	6.0	---
5164	12390	49.8	24.7	5.6	48.7
5270	12391	49.3	25.5	5.6	---
5274	12392	47.4	29.5	5.7	---
5629	12393	48.1	26.0	5.7	---
5701	12394	48.1	25.8	5.9	---
5816	12395	51.3	26.2	5.5	---
5839	12396	47.5	25.0	5.9	---
6313	12397	48.3	27.2	5.8	---
6574	12398	49.6	23.1	5.9	---
6896	12399	49.1	24.8	5.7	---
7294	12400	48.1	26.1	5.8	48.6
7302	12401	45.4	28.3	6.0	---
7318	12402	48.9	24.2	5.6	---
7466	12403	48.1	25.7	5.7	---
7470	12404	46.3	30.7	5.8	---
7471	12405	46.2	27.1	5.9	---
7474	12406	46.9	25.9	5.9	---
7483	12407	49.2	23.4	5.7	---
7487	12408	49.0	24.8	5.7	---
7489	12409	48.2	24.6	5.7	---
7497	12410	46.3	28.9	5.8	46.5
7501	12411	47.0	30.6	5.7	---
7502	12412	44.9	29.5	5.9	---
7503	12413	45.4	26.1	5.9	---
7505	12414	44.1	30.3	6.0	---
7548	12415	45.1	27.7	6.0	---
7549	12416	48.5	27.5	5.7	---
7550	12417	47.9	27.0	5.8	---
7551	12418	45.9	27.5	6.1	---
7554	12419	46.2	26.6	6.0	---
7555	12420	46.3	27.4	5.9	47.9
7556	12421	46.6	26.1	5.9	---
7557	12422	46.5	25.7	5.9	---
7558	12423	46.1	27.6	5.9	---
7559	12424	46.1	26.9	5.9	---
7560	12425	48.5	26.5	5.7	---
7581	12426	49.3	25.6	5.7	---
7582	12427	48.4	24.9	5.7	---
7583	12428	46.2	28.3	5.9	---
7584	12429	47.0	25.7	5.8	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefined (TAA)	Moisture%	Oil% (Soxhlet)
7585	12430	47.1	25.6	5.8	47.9
7586	12431	48.3	26.8	5.7	---
7588	12432	46.4	28.3	5.7	---
7589	12433	46.0	27.3	5.8	---
7590	12434	46.5	27.6	5.8	---
7591	12435	46.6	26.5	5.8	---
7592	12436	45.9	26.6	5.8	---
7593	12437	48.1	25.6	5.8	---
7594	12438	45.9	27.0	6.0	---
7595	12439	46.7	25.9	6.0	---
7596	12440	47.6	25.6	6.0	48.7
7598	12441	46.4	28.6	5.9	---
7599	12442	48.0	26.7	5.9	---
7600	12443	46.2	26.6	6.0	---
7601	12444	48.3	25.7	5.9	---
7602	12445	47.4	26.8	5.8	---
7603	12446	47.2	26.4	5.8	---
7604	12447	46.2	26.5	6.0	---
7606	12448	46.3	24.2	6.3	---
7609	12449	46.9	25.7	5.9	---
7610	12450	46.7	26.0	6.0	45.9
7613	12451	48.3	25.5	5.9	---
7615	12452	47.8	25.8	5.9	---
7624	12453	46.7	25.7	6.0	---
7625	12454	51.8	25.8	5.5	---
7632	12455	47.1	27.8	6.0	---
7634	12456	49.4	24.5	5.6	---
7637	12457	53.5	24.1	5.3	---
7642	12458	46.8	24.6	6.0	---
7647	12459	49.7	25.6	5.8	---
7650	12460	48.4	26.3	6.0	48.1
7651	12461	46.9	23.4	6.2	---
7652	12462	48.4	26.2	6.0	---
7654	12463	47.8	25.7	6.0	---
7661	12464	48.3	27.4	5.9	---
7665	12465	49.4	28.0	5.7	---
7668	12466	50.2	24.8	5.7	---
7693	12467	49.2	26.6	5.7	---
7694	12468	49.7	23.4	5.7	---
7695	12469	48.4	25.2	5.9	---
7696	12470	52.3	25.1	5.6	51.7
7702	12471	47.3	26.7	5.9	---
7706	12472	45.8	26.6	6.0	---
7707	12473	46.1	27.8	6.1	---
7708	12474	46.2	27.1	6.1	---
7719	12475	47.8	25.3	6.0	---
7721	12476	49.9	27.3	5.7	---
7729	12477	50.1	25.7	5.8	---
7773	12478	47.8	25.7	6.0	---
10281	14354	47.3	24.0	5.7	---
10282	14355	42.1	23.7	6.3	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Moisture%	Oil% (Soxhlet)
10283	14356	46.8	24.8	5.5	---
10284	14357	47.7	24.7	5.6	---
10285	14358	45.4	24.9	5.8	---
10286	14359	41.5	23.8	6.4	---
10287	14360	45.4	28.1	5.8	---
10288	14361	45.7	25.5	5.8	---
10290	14362	47.8	25.4	5.7	---
10291	14363	46.3	20.6	5.7	---
10292	14364	43.6	21.8	6.1	---
10295	14365	44.6	23.7	5.9	---
10296	14366	41.2	27.7	6.3	---
10297	14367	44.6	24.5	6.5	---
10298	14368	46.0	24.9	5.9	---
10299	14369	45.7	26.4	5.8	---
10300	14370	48.4	24.1	5.6	---
10301	14371	44.3	26.1	5.9	---
10302	14372	42.6	26.2	5.9	---
10303	14373	45.6	27.4	5.7	---
10304	14374	45.6	27.8	5.7	---
10305	14375	45.1	28.5	5.8	---
10306	14376	45.4	26.8	5.7	---
10308	14377	45.5	27.5	5.7	---
10309	14378	44.9	26.4	5.7	---
10310	14379	45.2	26.0	5.8	---
10312	14380	45.0	26.4	5.9	46.6
10313	14381	44.9	27.2	5.6	---
10314	14382	44.6	27.6	5.8	---
10315	14383	45.3	29.4	5.9	---
10316	14384	49.8	25.8	5.4	---
10317	14385	48.6	27.4	5.4	---
10318	14386	44.7	26.2	5.7	---
10319	14387	45.6	28.8	5.7	---
10320	14388	38.8	31.8	6.5	---
10321	14389	42.1	25.8	6.3	---
10322	14390	46.3	23.2	5.5	---
10323	14391	45.8	26.4	5.7	---
10324	14392	45.4	26.0	5.9	---
10325	14393	46.1	26.4	5.8	---
10326	14394	41.5	20.9	6.5	---
10327	14395	46.3	27.1	5.7	---
10334	14396	43.5	27.0	5.9	---
10335	14397	45.8	26.9	5.8	---
10336	14398	46.8	26.7	5.7	---
10337	14399	43.3	23.1	6.2	---
10338	14400	43.3	26.7	6.1	45.8
10339	14401	45.9	28.0	5.8	---
10342	14402	44.2	20.4	6.3	---
10343	14403	42.4	22.3	6.2	---
10345	14404	47.4	22.9	5.5	---
10347	14405	46.1	23.1	5.7	---
10348	14406	41.4	27.2	6.1	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Mois- ture%	Oil% (Soxhlet)
10349	14407	42.8	29.2	5.8	---
10350	14408	45.0	28.1	5.7	---
10351	14009	47.1	25.7	5.5	---
10352	14410	49.4	17.1	5.5	---
10354	14411	46.0	24.2	5.7	---
10355	14412	43.4	21.9	6.0	---
10356	14413	46.6	24.8	5.7	---
10357	14414	44.9	21.2	5.9	---
10358	14415	44.3	22.6	6.0	---
10359	14416	45.8	28.6	5.5	---
10360	14417	46.1	22.2	5.8	---
10361	14418	43.3	27.0	6.1	---
10362	14419	40.5	20.2	6.6	---
10363	14420	45.8	24.3	5.8	46.3
10364	14421	45.5	23.6	5.8	---
10365	14422	45.8	21.9	5.7	---
10366	14423	45.6	23.0	5.8	---
10369	14424	43.7	29.1	5.8	---
10370	14425	45.6	25.5	5.7	---
10374	14426	45.1	29.1	5.6	---
10376	14427	41.9	25.2	6.1	---
10377	14428	46.1	23.7	5.7	---
10378	14429	44.0	24.6	6.1	---
10379	14430	43.9	27.0	5.9	---
10380	14431	45.5	25.6	5.6	---
10381	14432	43.8	27.9	6.0	---
10382	14433	41.9	25.1	6.2	---
10383	14434	44.9	27.9	5.9	---
10384	14435	43.6	26.8	6.0	---
10385	14436	44.4	28.5	6.0	---
10388	14437	41.8	29.8	5.9	---
10390	14438	45.1	27.0	5.8	---
10391	14439	43.5	27.4	6.0	---
10392	14440	43.5	29.8	6.0	45.1
10394	14441	45.1	27.0	5.6	---
10395	14442	43.8	22.6	6.0	---
10396	14443	44.6	24.3	6.0	---
10397	14444	45.1	25.4	6.1	---
10398	14445	44.3	25.0	6.1	---
10399	14446	47.3	24.0	5.7	---
10400	14447	46.0	25.7	5.6	---
10401	14448	43.5	28.5	6.0	---
10402	14449	44.7	28.1	5.8	---
10403	14450	45.2	28.6	5.8	---
10404	14451	47.4	25.0	5.6	---
10406	14452	49.0	21.8	5.4	---
10408	14453	47.3	27.3	5.3	---
10409	14454	45.4	26.5	5.6	---
10410	14455	45.6	25.6	5.7	---
10411	14456	43.7	28.9	5.8	---
10412	14457	49.2	26.2	5.2	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Moisture%	Oil% (Soxhlet)
10413	14458	46.4	24.4	5.7	---
10414	14459	43.2	27.5	5.9	---
10415	14460	44.7	28.7	5.6	45.2
10416	14461	46.7	25.5	5.4	---
10419	14462	48.3	27.4	5.4	---
10420	14463	49.8	25.3	5.4	---
10421	14464	46.4	26.6	5.7	---
10422	14465	46.8	24.2	5.5	---
10423	14466	44.4	25.9	5.8	---
10424	14467	46.3	22.9	5.5	---
10425	14468	44.4	28.1	5.8	---
10426	14469	47.5	23.9	5.5	---
10427	14470	48.3	23.0	5.5	---
10428	14471	47.6	24.6	5.4	---
10429	14472	47.2	24.4	5.4	---
10430	14473	49.0	25.2	5.5	---
10431	14474	47.6	19.6	5.6	---
10432	14475	43.9	27.9	5.8	---
10433	14476	43.5	23.5	6.0	---
10434	14477	45.0	24.6	5.7	---
10435	14478	48.7	19.3	5.6	---
10436	14479	45.4	26.8	5.7	---
10437	14480	46.2	28.5	5.6	47.7
10438	14481	42.3	25.4	6.2	---
10439	14482	43.6	22.1	6.1	---
10440	14483	46.1	24.5	5.8	---
10441	14484	47.0	26.4	5.6	---
10442	14485	45.3	26.2	5.5	---
10444	14486	43.0	23.3	6.2	---
10445	14487	43.6	28.2	5.8	---
10446	14488	46.2	26.0	5.6	---
10447	14489	43.4	24.3	5.8	---
10448	14490	45.4	26.3	5.7	---
10449	14491	43.5	27.3	6.0	---
10450	14492	47.5	27.7	5.6	---
10451	14493	46.3	25.6	5.7	---
10452	14494	46.8	27.5	5.5	---
10453	14495	46.0	24.7	5.7	---
10454	14496	43.5	26.5	5.8	---
10455	14497	46.6	26.1	5.6	---
10456	14498	46.3	25.2	5.6	---
10457	14499	43.6	28.0	5.8	---
10458	14500	45.4	28.3	5.7	45.2
10461	14501	43.8	24.1	5.9	---
10462	14502	44.7	25.5	5.9	---
10464	14503	42.9	26.0	6.0	---
10466	14504	47.0	21.7	5.7	---
10467	14505	43.2	25.1	5.8	---
10468	14506	45.4	26.8	5.7	---
10469	14507	44.7	26.8	5.8	---
10470	14508	44.8	26.1	6.0	---

ICG number	Lab Number	Oil (MPR)	Protein (Nx5.46) Undefined (TAA)	Moisture	Oil (Soxhlet)
10471	14509	44.5	25.5	5.8	---
10473	14510	46.9	24.7	5.6	---
10474	14511	44.1	27.6	5.9	---
10475	14512	43.4	28.8	5.9	---
10476	14513	45.5	24.9	5.8	---
10477	14514	43.6	28.9	6.0	---
10478	14515	45.4	23.9	5.9	---
10480	14516	42.7	29.3	5.9	---
10481	14517	42.4	29.1	6.2	---
10482	14518	43.8	28.4	6.0	---
10483	14519	45.7	26.5	5.7	---
10484	14520	44.2	26.9	6.0	45.2
10485	14521	44.7	25.2	5.9	---
10486	14522	47.5	20.6	5.8	---
10487	14523	46.4	24.4	5.6	---
10488	14524	42.3	29.1	6.1	---
10493	14525	44.5	24.7	5.9	---
10494	14526	44.3	26.7	5.7	---
10495	14527	46.5	27.0	5.6	---
10497	14528	43.6	28.6	6.0	---
10498	14529	44.7	27.8	5.9	---
10499	14530	43.4	26.8	6.1	---
10500	14531	44.7	30.5	6.0	---
10502	14532	45.8	25.3	5.7	---
10503	14533	49.4	24.5	5.3	---
10504	14534	43.2	30.8	6.0	---
10505	14535	48.2	26.9	5.5	---
10506	14536	45.3	27.8	5.7	---
10507	14537	45.8	29.1	5.7	---
10508	14538	47.7	22.6	5.6	---
10509	14539	44.1	26.6	6.1	---
10510	14540	42.8	29.5	5.9	44.8
10511	14541	43.1	30.4	5.8	---
10512	14542	45.4	29.1	5.7	---
10513	14543	45.4	27.3	5.7	---
10514	14544	45.7	29.1	5.6	---
10515	14545	45.8	30.4	5.9	---
10516	14546	44.7	29.9	6.0	---
10517	14547	44.6	25.4	5.9	---
10518	14548	45.9	26.0	5.7	---
10519	14549	43.3	28.3	6.0	---
10520	14550	40.9	27.1	6.3	---
10521	14551	42.6	27.4	6.3	---
10522	14552	45.9	28.4	5.7	---
10523	14553	46.2	22.1	5.9	---
10524	14554	45.0	23.6	6.0	---
10525	14555	43.9	25.2	6.1	---
10526	14556	45.6	26.8	5.8	---
10527	14557	45.8	20.5	5.9	---
10528	14558	46.4	21.1	6.0	---
10530	14559	49.9	25.1	5.3	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Moisture%	Oil% (Soxhlet)
10531	14560	43.2	29.5	6.0	44.2
10532	14561	45.3	27.1	5.8	---
10533	14562	47.5	25.8	5.5	---
10534	14563	52.2	24.1	5.3	51.3
10535	14564	47.2	27.1	5.7	---
10536	14565	46.5	24.9	5.7	---
10537	14566	43.3	29.6	6.1	---
10538	14567	44.1	29.3	5.8	---
10540	14568	43.2	30.0	5.8	---
10541	14569	42.7	24.6	6.1	---
10542	14570	44.6	23.8	5.9	---
10543	14571	45.0	24.5	5.9	---
10544	14572	46.8	27.5	5.8	---
10545	14573	45.2	27.8	6.0	---
10546	14574	44.0	24.7	6.0	---
10547	14575	45.2	27.6	5.9	---
10549	14576	45.4	28.9	5.9	---
10551	14577	43.4	25.3	6.0	---
10552	14578	40.6	25.5	6.3	---
10553	14579	42.2	28.4	6.2	---
10556	14581	40.4	26.6	6.5	---
10557	14582	41.2	25.6	6.6	---
10558	14583	41.4	27.6	6.4	---
10560	14584	39.8	29.3	6.6	---
10561	14585	42.7	25.8	6.3	---
10564	14586	45.2	28.7	5.9	---
10565	14587	45.0	27.7	7.9	---
10566	14588	44.0	29.2	5.9	---
10567	14589	44.9	26.4	5.9	---
10569	14590	44.2	29.2	6.0	---
10571	14591	46.5	24.8	5.6	---
10572	14592	47.1	26.5	5.7	---
10573	14593	45.6	28.9	5.8	---
10575	14594	44.2	26.5	5.8	---
10576	14595	48.3	24.3	5.5	---
10580	14596	46.6	22.7	5.6	---
10585	14597	46.5	26.5	5.7	---
10586	14598	44.4	26.7	5.8	---
10590	14599	45.5	27.5	5.6	---
10592	14600	44.1	21.3	6.7	45.8
10593	14601	45.5	23.8	5.9	---
10595	14602	45.1	28.3	5.8	---
10596	14603	46.2	26.7	5.8	---
10597	14604	42.1	28.0	6.0	---
10598	14605	46.9	22.2	5.9	---
10599	14606	44.6	24.3	5.9	---
10600	14607	43.1	32.0	5.9	---
10601	14608	44.6	27.7	5.8	---
10602	14609	42.8	28.6	5.9	---
10603	14610	42.6	28.8	6.1	---
10604	14611	45.2	29.6	5.7	---



ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Undefatted (TAA)	Moisture%	Oil% (Soxhlet)
10607	14612	46.7	28.8	5.7	---
10608	14613	47.2	21.7	5.7	---
10610	14614	43.8	28.6	6.2	---
10611	14615	45.3	23.5	6.0	---
10612	14616	47.4	22.9	5.9	---
10613	14617	43.8	26.7	6.3	---
10615	14618	45.4	26.8	6.0	---
10617	14619	45.3	22.7	6.1	---
10619	14620	45.8	25.9	5.9	47.1
10622	14621	45.1	23.3	6.1	---
10625	14622	44.5	23.1	6.2	---
10628	14623	43.2	27.6	6.0	---
10629	14624	43.5	28.2	6.1	---
10632	14625	42.7	25.6	6.2	---
10634	14627	46.1	26.2	6.0	---
10636	14628	44.4	26.3	6.1	---
10674	14629	47.1	25.0	5.7	---
10677	14630	49.3	28.5	5.5	---
10678	14631	48.7	19.2	5.6	---
10679	14632	46.5	28.1	5.6	---
10681	14633	44.1	24.2	6.1	---
10684	14634	48.0	18.8	5.6	---
10685	14635	47.8	25.0	5.7	---
10686	14636	48.0	20.2	5.8	---
10687	14637	43.8	24.6	6.1	---
10689	14638	45.3	23.7	6.0	---
10690	14639	47.2	27.5	5.6	---
10691	14640	45.8	27.7	5.8	46.8
10692	14641	45.2	30.3	6.1	---
10695	14642	43.9	29.1	6.0	---
10696	14643	45.6	26.2	5.8	---
10697	14644	46.7	24.0	5.8	---
10698	14645	43.5	23.0	6.1	---
10699	14646	45.9	22.0	5.9	---
10700	14647	46.2	23.9	5.9	---
10701	14648	45.6	24.9	5.7	---
10702	14649	44.7	28.1	5.9	---
10703	14650	45.5	26.2	5.8	---
10704	14651	44.0	28.5	6.0	---
10705	14652	44.8	25.9	6.1	---
10707	14653	44.6	23.9	6.0	---
10708	14654	46.2	23.3	6.7	---
10709	14655	45.8	23.1	6.8	---
10710	14656	45.3	24.8	6.8	---
10711	14657	46.2	20.5	6.7	---
10712	14658	46.3	21.8	6.6	---
10713	14659	45.5	21.8	6.9	---
10714	14660	47.7	25.0	6.4	47.5
10715	14661	47.9	27.8	6.2	---
10716	14662	45.9	23.4	6.6	---
10717	14663	46.7	23.8	6.6	---

ICG number	Lab Number	Oil% (NMR)	Protein% (Nx5.46) Unfatfatted (TAA)	Mois- ture%	Oil% (Soxhlet)
10710	14664	46.3	23.2	6.6	---
10720	14665	45.9	26.1	6.5	---
10721	14666	46.5	21.3	6.6	---
10722	14667	47.0	26.4	6.4	---
10723	14668	46.0	25.9	6.6	---
10724	14669	46.8	24.2	6.5	---
10725	14670	46.7	24.2	6.7	---
10726	14671	44.5	25.6	6.9	---
10727	14672	45.2	24.4	7.0	---
10728	14673	46.5	24.0	6.7	---
10729	14674	46.7	24.7	6.7	---
10730	14675	46.0	23.9	6.9	---
10731	14676	46.1	23.3	6.8	---
10732	14677	46.3	24.6	6.7	---
10733	14678	45.6	26.3	6.6	---
10734	14679	46.5	25.6	6.7	---
10736	14680	46.5	25.5	6.5	48.0
10737	14681	44.0	22.9	7.1	---
10738	14682	45.9	27.1	6.4	---
10740	14683	47.4	25.6	6.4	---
10741	14684	46.4	23.2	7.1	---
10742	14685	45.9	27.2	6.8	---
10743	14686	46.8	24.9	6.8	---
10744	14687	47.8	23.8	6.5	---
10745	14688	46.0	25.2	6.4	---
10746	14689	45.6	23.6	6.8	---
10747	14690	45.7	26.5	6.5	---
10748	14691	43.8	28.9	6.6	---
10749	14692	39.1	24.2	7.8	---
10750	14693	46.4	26.7	6.4	---
10751	14694	46.7	27.6	6.5	---
10752	14695	50.2	23.1	6.2	52.6
10753	14696	47.4	24.0	6.4	---
10754	14697	50.1	23.6	6.2	50.0
10755	14698	45.3	27.1	6.7	---
10756	14699	51.2	24.4	6.3	51.5
10757	14700	46.2	25.5	6.7	47.2
10758	14701	47.3	24.4	6.8	---
10759	14702	41.3	24.2	7.9	---
10760	14703	46.7	26.4	7.0	---
10761	14704	46.7	27.2	7.0	---
10762	14705	46.5	23.5	7.1	---
10763	14706	45.6	25.6	7.0	---
10764	14707	41.6	25.9	7.4	---
10765	14708	52.2	24.7	6.0	52.9
10766	14709	46.6	28.8	2.9	---
10767	14710	46.0	24.7	6.5	---
10768	14711	47.7	28.4	6.1	---
10769	14712	46.0	25.8	6.2	---
10770	14713	46.0	25.3	6.5	---
10771	14714	48.1	24.1	6.9	---

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefatted (TAA)	Moisture	Oil (Soxhlet)
10772	14715	46.7	25.9	7.0	---
10773	14716	46.0	26.6	7.0	---
10774	14717	43.8	27.4	7.2	---
10776	14718	46.1	28.1	6.4	---
10777	14719	45.6	28.7	6.5	---
10778	14720	42.9	27.0	7.0	43.8
10779	14721	45.9	26.3	6.4	---
10780	14722	44.9	25.0	6.6	---
10781	14723	45.7	28.0	6.6	---
10782	14724	46.0	28.7	6.3	---
10783	14725	49.3	26.4	6.2	---
10784	14726	41.0	25.3	7.5	---
10785	14727	47.4	23.2	6.4	---
10786	14728	43.0	26.7	6.8	---
10788	14729	45.3	29.7	6.6	---
10789	14730	45.4	25.4	6.8	---
10790	14731	51.7	22.6	6.4	52.0
10791	14732	47.1	22.2	7.1	---
10793	14733	46.2	26.3	7.2	---
10795	14734	47.4	20.9	7.3	---
10796	14735	48.9	21.2	6.9	---
10797	14736	45.5	23.1	7.2	---
10798	14737	44.3	26.3	6.8	---
10799	14738	47.2	24.6	6.3	---
10800	14739	43.9	26.9	6.7	---
10801	14740	44.1	28.4	6.7	44.3
10802	14741	46.7	24.2	6.3	---
10803	14742	45.2	24.4	6.4	---
10804	14743	46.2	24.2	6.5	---
10805	14744	44.4	26.0	5.6	---
10806	14745	44.7	25.7	5.7	---
10808	14746	38.2	28.5	6.4	---
10810	14747	44.9	24.9	5.8	---
10811	14748	45.8	27.8	5.6	---
10812	14749	44.5	28.4	5.7	---
10813	14750	46.1	26.6	5.7	---
10815	14751	45.7	27.4	5.9	---
10816	14752	45.4	27.5	5.7	---
10820	14753	45.8	24.4	6.0	---
10822	14754	46.9	28.8	5.7	---
10827	14755	49.0	23.1	5.6	---
10828	14756	45.5	24.5	6.1	---
10829	14757	45.6	24.3	6.0	---
10830	14758	48.9	23.2	5.6	---
10831	14759	49.8	25.6	5.6	---
10832	14760	48.3	24.8	5.6	48.2
10833	14761	46.4	25.6	6.0	---
10834	14762	48.0	25.2	5.7	---
10835	14763	45.8	21.8	6.2	---
10836	14764	45.8	25.9	6.1	---
10837	14765	48.7	24.8	5.6	---

ICG number	Lab Number	Oily (NMR)	Protein Undetected (TAA)	Mois- ture	Oily (Bohlet)
10838	14766	47.9	25.0	5.7	---
10839	14767	43.4	22.4	6.3	---
10840	14768	41.4	17.7	6.7	---
10841	14769	47.4	18.9	5.8	---
10843	14770	48.0	25.2	5.5	---
10844	14771	46.1	19.9	6.2	---
10845	14772	47.6	23.5	5.7	---
10847	14773	46.2	23.5	6.2	---
10852	14774	47.8	21.9	6.4	---
10853	14775	49.5	24.7	5.8	---
10857	14776	47.3	25.1	6.1	---
10858	14777	50.1	23.1	5.6	51.3
10859	14778	41.8	29.4	6.1	---
10860	14779	41.0	25.8	6.5	---
10861	14780	45.2	23.4	5.9	46.6
10862	14781	45.4	23.6	5.9	---
10864	14782	47.4	22.9	5.7	---
10866	14783	46.8	25.1	5.6	---
10867	14784	45.8	25.7	5.6	---
10869	14785	50.8	25.0	5.2	51.0
10870	14786	49.6	22.2	5.5	---
10871	14787	48.6	26.3	5.5	---
10872	14788	48.3	24.8	5.5	---
10873	14789	48.4	23.6	5.8	---
10875	14790	46.8	25.9	5.9	---
10877	14791	44.7	21.2	6.7	---
10879	14792	46.0	19.0	6.7	---
10883	14793	49.0	22.2	6.4	---
10884	14794	48.1	28.0	5.9	---
10885	14795	45.0	25.9	6.0	---
10886	14796	50.1	22.9	5.5	50.2
10889	14797	47.2	26.7	5.6	---
10890	14798	46.9	27.0	5.7	---
10892	14799	44.6	28.6	5.7	---
10893	14800	45.7	27.4	5.8	---
10894	14801	46.3	27.3	5.5	46.5
10895	14802	41.3	28.3	6.1	---
10896	14803	47.8	23.9	5.4	---
10897	14804	40.7	25.6	6.9	---
10898	14805	48.9	25.2	5.8	---
10899	14806	45.4	26.9	6.2	---
10900	14807	45.3	28.2	6.1	---
10901	14808	46.0	30.0	6.0	---
10903	14809	45.7	28.1	5.9	---
10904	14810	44.6	28.1	6.0	---
10906	14811	44.4	27.9	5.6	---
10907	14812	44.4	21.5	5.7	---
10908	14813	47.6	23.9	5.5	---
10909	14814	46.6	24.2	5.7	---
10911	14815	44.1	23.8	5.9	---
10912	14816	44.8	26.0	5.6	---

ICG number  
 Lab Number  
 O111 Proteins (Mx5.46)  
 Undeleted (TMA) tures  
 O111 (Soxhlet)

10913	14817	42.8	24.1	5.9
10914	14818	46.6	21.9	5.8
10915	14819	45.4	24.2	5.9
10916	14820	45.5	25.6	6.2
10917	14821	45.1	24.5	6.4
10918	14822	45.5	22.3	6.5
10919	14823	47.1	24.2	6.1
10921	14824	46.6	26.3	6.3
10922	14825	45.4	25.4	6.3
10923	14826	43.2	27.0	6.6
10964	14827	46.3	22.6	6.1
10969	14828	45.0	26.2	6.0
10991	14829	41.9	25.6	6.5
10992	14830	49.1	24.5	5.6
10993	14831	43.3	21.5	6.2
10994	14832	42.3	22.8	6.0
10995	14833	43.0	20.1	5.8
10996	14834	45.5	21.7	5.8
10997	14835	43.1	21.6	6.1
10998	14836	46.0	22.8	5.7
10999	14837	46.1	20.3	5.7
11002	14838	43.9	19.4	5.9
11003	14839	46.5	19.0	5.6
11004	14840	41.7	24.0	6.1
11005	14841	43.0	22.5	6.1
11006	14842	43.1	21.8	6.0
11007	14843	42.0	24.5	6.2
11008	14844	44.5	22.2	5.8
11009	14845	44.4	21.1	6.0
11010	14846	43.0	22.8	6.0
11011	14847	42.8	23.4	6.1
11012	14848	42.7	25.6	6.3
11013	14849	44.8	21.8	5.9
11014	14850	44.3	22.0	5.9
11017	14851	46.3	24.9	5.7
11019	14852	49.5	23.4	5.5
11020	14853	41.5	22.8	5.5
11021	14854	46.5	25.6	5.8
11022	14855	50.5	25.2	5.5
11023	14856	44.0	24.6	6.0
11024	14857	43.1	25.3	6.1
11025	14858	45.7	22.0	5.8
11026	14859	45.0	25.0	5.9
11027	14860	45.5	24.2	5.6
11028	14861	43.5	23.1	5.9
11029	14862	45.7	20.6	5.6
11031	14863	45.5	20.3	5.6
11032	14864	40.2	20.9	6.9
11033	14865	43.9	24.3	5.6
11034	14866	43.0	26.7	6.2
11035	14867	43.4	24.4	6.4

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefatted (TAA)	Moisture	Oil ( Soxhlet)
11036	14868	41.3	24.5	6.6	---
11038	14869	45.2	22.8	5.8	---
11040	14870	47.5	23.1	5.6	---
11041	14871	40.0	24.2	6.3	---
11043	14872	43.2	24.7	5.7	---
11044	14873	46.6	27.3	5.5	---
11046	14874	43.8	21.3	5.9	---
11047	14875	44.9	27.5	5.6	---
11048	14876	45.2	22.8	5.7	---
11049	14877	42.3	31.4	5.9	---
11050	14878	45.4	28.8	5.8	---
11052	14879	45.9	26.3	5.6	---
11053	14880	44.8	25.7	5.9	45.6
11054	14881	46.1	25.9	6.0	---
11055	14882	49.2	19.7	6.0	---
11056	14883	46.7	26.4	6.1	---
11057	14884	45.5	26.7	6.1	---
11058	14885	46.1	26.6	6.0	---
11059	14886	46.6	25.7	5.9	---
11060	14887	46.7	25.6	5.9	---
11061	14888	46.0	27.1	5.8	---
11062	14889	43.9	24.9	6.1	---
11063	14890	48.1	23.3	5.5	---
11069	14891	43.0	23.9	6.1	---
11070	14892	45.8	28.5	5.9	---
11072	14893	46.7	25.6	5.5	---
11073	14894	46.6	27.9	5.9	---
11074	14895	42.4	23.4	6.4	---
11075	14896	44.1	26.2	5.9	---
11076	14897	47.4	27.3	5.5	---
11078	14898	43.8	25.3	5.7	---
11079	14899	42.7	25.7	5.7	---
11080	14900	44.2	25.5	5.4	44.1
11083	14901	45.2	22.4	5.3	---
11084	14902	44.1	28.2	5.7	---
11085	14903	47.8	25.9	5.2	---
11088	14904	45.4	22.5	5.6	---
11089	14905	43.5	24.3	5.7	---
11090	14906	43.2	19.6	6.1	---
11092	14907	39.7	23.3	6.3	---
11095	14909	44.1	23.4	5.9	---
11099	14910	44.4	23.0	6.1	---
11102	14911	43.7	23.8	6.4	---
11103	14912	49.7	26.0	5.8	---
11104	14913	47.9	25.5	6.2	---
11105	14914	46.0	19.3	6.9	---
11106	14915	43.5	20.7	7.4	---
11107	14916	44.1	26.2	6.1	---
11108	14917	46.4	21.3	5.8	---
11118	14918	43.8	24.4	6.8	---
11133	14919	42.3	29.4	6.1	---

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefatted (TAA)	Moisture%	Oil (Soxhlet)
11134	14920	48.5	23.0	5.5	47.9
11136	14921	42.9	28.4	5.9	---
11141	14922	42.6	23.8	5.8	---
11159	14923	42.5	27.6	5.8	---
11161	14924	44.7	25.6	6.5	---
11163	14925	45.1	20.6	6.3	---
11172	14926	41.4	22.1	6.7	---
11173	14927	44.9	23.4	6.1	---
11174	14928	48.4	25.1	5.7	---
11177	14929	50.4	26.5	5.4	51.8
11178	14930	44.5	26.7	6.1	---
11182	14931	45.4	26.0	5.8	---
11184	14932	49.1	25.8	5.3	---
11185	14933	44.2	24.3	5.8	---
11186	14934	47.2	25.7	5.5	---
11190	14935	48.4	18.4	5.4	---
11193	14936	48.9	24.3	5.4	---
11197	14937	47.6	24.7	5.6	---
11198	14938	46.9	25.8	5.8	---
11201	14939	50.6	27.0	5.4	51.5
11204	14940	48.9	26.0	5.7	49.3
11206	14941	43.2	28.5	6.4	---
11208	14942	48.2	27.7	6.0	---
11210	14943	44.5	29.2	6.5	---
11212	14944	46.5	25.9	6.2	---
11213	14945	43.1	29.6	6.4	---
11217	14946	43.1	31.2	6.3	---
11221	14947	42.5	27.0	6.3	---
11224	14948	45.8	27.5	5.8	---
11225	14949	47.2	24.6	5.6	---
11226	14950	45.7	26.3	5.7	---
11229	14951	45.0	27.3	5.7	---
11230	14952	44.6	27.9	5.7	---
11231	14953	43.3	28.7	5.8	---
11232	14954	44.2	29.6	6.3	---
11234	14955	42.6	28.8	6.2	---
11242	14956	45.8	26.9	5.7	---
11245	14957	46.3	26.6	5.6	---
11249	14958	45.7	27.1	5.6	---
11250	14959	44.0	26.7	5.7	---
11251	14960	48.3	24.4	5.2	46.1
11252	14961	45.4	26.6	5.5	---
11253	14962	46.2	28.7	5.3	---
11254	14963	46.1	25.5	5.5	---
11260	14964	46.5	28.4	5.4	---
11272	14965	44.1	27.1	5.6	---
11273	14966	45.6	26.6	5.6	---
11276	14967	46.5	27.2	5.5	---
11278	14968	45.7	21.6	5.6	---
11279	14969	46.6	23.4	5.7	---
11280	14970	46.9	25.8	5.7	---

ICG number	Lab Number	Oil (NMR)	Protein (Nx5.46) Undefatted (TAA)	Mois- ture	Oil (Soxhlet)
11284	14971	48.4	27.0	5.7	---
11288	14972	45.7	26.4	5.9	---
11289	14973	46.2	26.1	6.2	---
11290	14974	46.3	24.3	6.2	---
11291	14975	46.1	26.5	6.3	---
11292	14976	46.2	25.0	5.9	---
11293	14977	47.6	22.3	5.8	---
11294	14978	45.9	28.4	5.8	---
11297	14979	44.0	28.2	5.8	---
11298	14980	44.7	27.4	5.5	45.4