

## 2021 – Factory calibrations for Infracont XGrain and SGrain instruments

Product	Components	Basis	Range	Accuracy (SEP, standard error of prediction)	Precision (SD of repeatability measurements by refilling the sample holder)
<b>Wheat</b>	Gluten	N×5.7 D.M.*	15-50%	1.5	0.4
	Protein		8-18%	0.25	0.1
	Moisture		9-20%	0.2	0.1
	Zeleny-index	D.M.	10-70 ml	5.0	1.5
	W (under dev.)	D.M.	60-500 J	50	15
	Specific weight <sup>1</sup>		65-86 kg/hl	0.7	0.35
<b>Winter Barley</b>	Protein	N×6.25 D.M.	7-18%	0.35	0.15
	Moisture		9-20%	0.2	0.1
	Specific weight <sup>1</sup>		58-76 kg/hl	0.7	0.35
<b>Spring Barley</b>	Protein	N×6.25 D.M.	7-18%	0.35	0.1
	Moisture		9-20%	0.2	0.1
	Specific weight <sup>1</sup>		58-76 kg/hl	0.7	0.35
<b>Durum</b>	Gluten	D.M.	20-40%	1.5	0.4
	Protein	N×5.7 D.M.	11-18%	0.25	0.1
	Moisture		10-20%	0.2	0.1
<b>Rye</b>	Protein	N×6.25 D.M.	7-14%	0.35	0.1
	Moisture		10-20%	0.2	0.1
<b>Triticale</b>	Protein	N×6.25 D.M.	10-16%	0.25	0.1
	Moisture		10-20%	0.2	0.1
<b>Oats</b>	Moisture		10-20%	0.25	0.1
	Specific weight <sup>1</sup>		45-75 kg/hl	1.0	0.5
<b>Corn</b>	Protein	N×6.25 D.M.	6-11%	0.4	0.15
	Moisture		12-40%	0.5	0.15
	Starch	D.M.	65-73%	1.0	0.4
	Oil	D.M.	3-5%	0.3	0.1
	Specific weight <sup>1</sup>		68-82 kg/hl	0.8	0.4
<b>Rapeseed</b>	Oil	As is	34-46%	0.7	0.4
	Oil	D.M.	36-52%	0.8	0.5
	Moisture		5-12%	0.3	0.15
<b>Soybean</b>	Protein	As is	26-40%	0.5	0.2
	Protein	N×6.25 D.M.	32-45%	0.6	0.3
	Oil		As is	14-24%	0.3
	Oil	D.M.	17-26%	0.4	0.15
	Moisture		8-25%	0.4	0.1
	Specific weight <sup>1</sup>		70-80 kg/hl	0.7	0.35

Product	Components	Basis	Range	Accuracy (SEP, standard error of prediction)	Precision (SD of repeatability measurements by refilling the sample holder)
<b>Sunflower seed (husked)</b>	Moisture	As is	5-10%	0.4	0.2
	Oil		36-50%	1.5	0.6
	Oleic acid		20-90%	6.0	3.0
<b>Peas</b>	Moisture		11-20%	0.4	0.15
<b>Beans</b>	Moisture	N×6.25 D.M.	11-20%	0.4	0.15
	Protein		20-28	0.6	0.3
<b>Wheat flour<sup>+</sup></b>	Gluten	D.M. N×6.25 D.M.	20-40%	1.2	0.4
	Moisture		12-16%	0.3	0.1
	Ash		0.4-1.4%	0.035	0.015
	Protein		11-18%	0.35	0.1
<b>Semolina<sup>+</sup></b>	Moisture	N×6.25 D.M.	12-16%	0.3	0.1
	Protein		11-18%	0.35	0.1
<b>Soymeal<sup>+</sup> (extracted)</b>	Protein**	As is	40-50%	0.5	0.15
	Moisture		8-14%	0.2	0.1
<b>Soybean expeller<sup>+</sup> (pressed)</b>	Oil	As is	4-15%	0.3	0.1
	Protein**	As is	32-45%	0.6	0.2
	Moisture		2-14%	0.3	0.1
<b>Corn grits<sup>+</sup></b>	Moisture	N×6.25 D.M. As is	10-15%	0.2	0.1
	Protein		5-8%	0.2	0.1
	Oil		0.8-3%	0.2	0.1
<b>Corn flour<sup>+</sup></b>	Moisture	As is As is	10-16%	0.2	0.1
	Protein		5-8%	0.2	0.1
	Oil		1-3%	0.2	0.1
<b>Rice (husked)</b>	Protein	N×6.25 D.M.	4.5-8%	0.25	0.1
	Moisture		10-15%	0.2	0.1
<b>Rice (unhusked)</b>	Moisture		10-25%	0.3	0.2

\* D.M.: on dry matter basis

\*\* crude protein

1: only in Infracont XGrain

+ cuvette needed