

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) |
|----------------------|--|--------------------|-------------------------|--|---|
| Wheat | 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.) Specific weight ¹ | D.M. | 60-500 J 65-86 kg/hl | 50 0.7 | 15 0.35 |
| Winter Barley | Protein | N×6.25 D.M. | 7-18% | 0.35 | 0.15 |
| | Moisture | | 9-20% | 0.2 | 0.1 |
| | Specific weight ¹ | | 58-76 kg/hl | 0.7 | 0.35 |
| Spring Barley | Protein | N×6.25 D.M. | 7-18% | 0.35 | 0.1 |
| | Moisture | | 9-20% | 0.2 | 0.1 |
| | Specific weight ¹ | | 58-76 kg/hl | 0.7 | 0.35 |
| Durum | Gluten | D.M. N×5.7 D.M. | 20-40% | 1.5 | 0.4 |
| | Protein | | 11-18% | 0.25 | 0.1 |
| | Moisture | | 10-20% | 0.2 | 0.1 |
| Rye | Protein | N×6.25 D.M. | 7-14% | 0.35 | 0.1 |
| | Moisture | | 10-20% | 0.2 | 0.1 |
| Triticale | Protein | N×6.25 D.M. | 10-16% | 0.25 | 0.1 |
| | Moisture | | 10-20% | 0.2 | 0.1 |
| Oats | Moisture | | 10-20% | 0.25 | 0.1 |
| | Specific weight ¹ | | 45-75 kg/hl | 1.0 | 0.5 |
| Corn | Protein | N×6.25 D.M. | 6-11% | 0.4 | 0.15 |
| | Moisture | | 12-20% | 0.5 | 0.15 |
| | Starch | D.M. | 65-73% | 1.0 | 0.4 |
| | Oil | D.M. | 3-5% | 0.3 | 0.1 |
| | Specific weight ¹ | | 68-82 kg/hl | 0.8 | 0.4 |
| Rapeseed | 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 |
| Soybean | 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 | 0.15 |
| | Oil | D.M. | 17-26% | 0.4 | 0.15 |
| | Moisture | | 8-25% | 0.4 | 0.1 |
| | Specific weight ¹ | | 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) |
|---|------------|----------------------|----------|--|---|
| Sunflower seed (husked) | Moisture | As is | 5-10% | 0.4 | 0.2 |
| | Oil | | 36-50% | 1.5 | 0.6 |
| | Oleic acid | | 20-90% | 6.0 | 3.0 |
| Peas | Moisture | | 11-20% | 0.4 | 0.15 |
| Beans | Moisture | N×6.25 D.M. | 11-20% | 0.4 | 0.15 |
| | Protein | | 20-28 | 0.6 | 0.3 |
| Wheat flour⁺ | 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 |
| Semolina⁺ | Moisture | N×6.25 D.M. | 12-16% | 0.3 | 0.1 |
| | Protein | | 11-18% | 0.35 | 0.1 |
| Soymeal⁺ (extracted) | Protein** | As is | 40-50% | 0.5 | 0.15 |
| | Moisture | | 8-14% | 0.2 | 0.1 |
| Soybean expeller⁺ (pressed) | 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 |
| Corn grits⁺ | 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 |
| Corn flour⁺ | 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 |
| Rice (husked) | Protein | N×6.25 D.M. | 4.5-8% | 0.25 | 0.1 |
| | Moisture | | 10-15% | 0.2 | 0.1 |
| Rice (unhusked) | Moisture | | 10-25% | 0.3 | 0.2 |

* D.M.: on dry matter basis

** crude protein

1: only in Infracont XGrain

+ cuvette needed