

seed analyzing



precise, fast, efficient





grain seeds, vegetable seeds, flower seeds

wheat, barley, rye, triticale, oat, rapeseed, turnip, mustard, pea, bean, sunflower, corn, begonias, clover, lupine, primrose, tomato, etc.



507 corns in less than 1,5 seconds

length, width, area fractionation

every single corn from a size of 0,2 mm

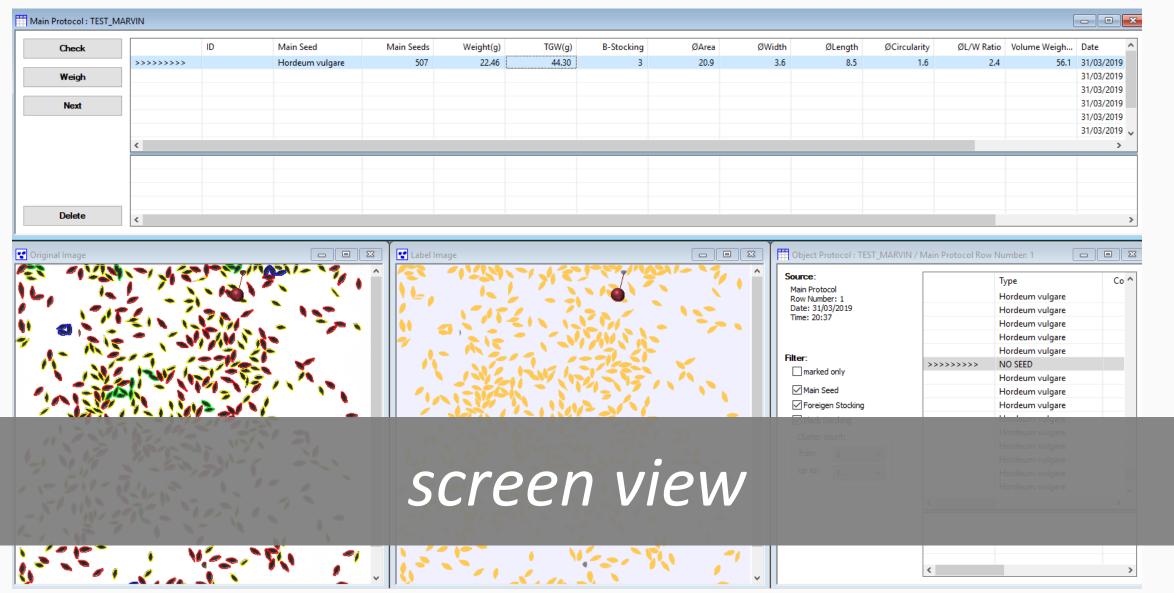


The adapted scale provides

thousand grain weight hectolitre weight

of the sample with an accuracy of 1mg



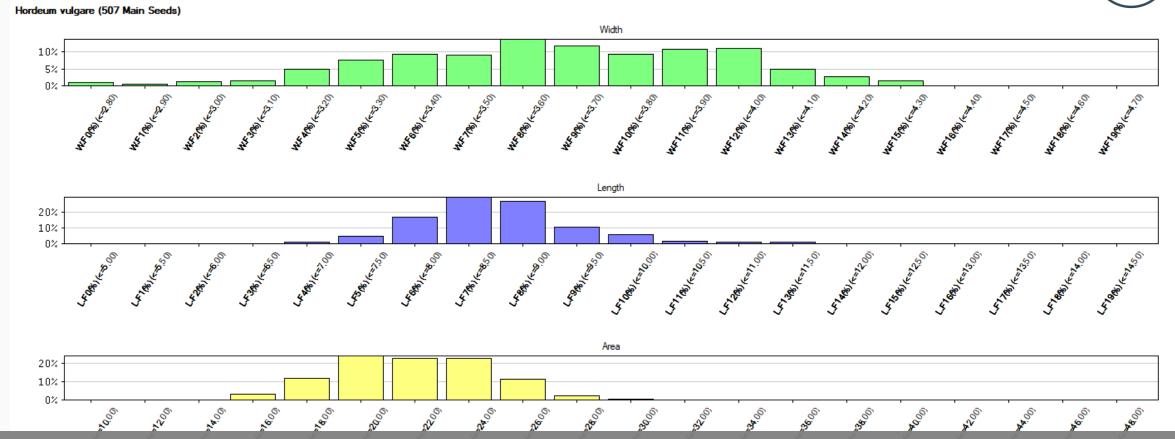






original image and label image





fraction chart



| Туре | Count As | Length(mm) | Width(mm) | Area(mm²) | Circularity | L/W Ratio |
|-----------------|----------|------------|-----------|-----------|-------------|-----------|
| Hordeum vulgare | 1 | 9.8 | 3.6 | 23.1 | 1.8 | 2.7 |
| Hordeum vulgare | 1 | 8.4 | 3.7 | 21.3 | 1.6 | 2.3 |
| Hordeum vulgare | 1 | 8.6 | 3.7 | 22.1 | 1.6 | 2.3 |
| Hordeum vulgare | 1 | 8.0 | 3.2 | 17.7 | 1.6 | 2.5 |
| NO SEED | 1 | 4.4 | 1.0 | 2.5 | 3.1 | 4.7 |
| Hordeum vulgare | 3 | 11.5 | 9.0 | 62.0 | 4.0 | 1.3 |
| Hordeum vulgare | 1 | 7.7 | 3.4 | 17.7 | 1.5 | 2.3 |
| Hordeum vulgare | 1 | 7.5 | 3.4 | 17.6 | 1.6 | 2.2 |
| Hordeum vulgare | 1 | 9.4 | 3.6 | 22.4 | 1.8 | 2.6 |
| Hordeum vulgare | 1 | 9.9 | 4.3 | 29.3 | 1.5 | 2.3 |

single corn data



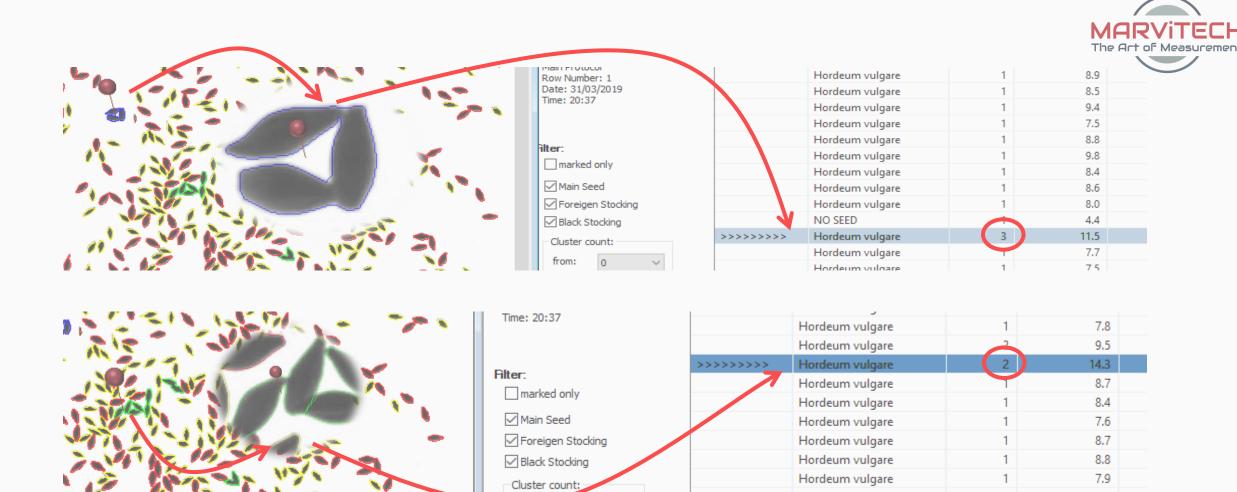
| | Туре | Count As | Length(mm) | Width(mm) | Area(|
|--------|-----------------|----------|------------|-----------|-------|
| | Hordeum vulgare | 1 | 8.3 | 4.0 | |
| | Hordeum vulgare | 1 | 7.2 | 3.4 | |
| | Hordeum vulgare | 1 | 8.8 | 3.3 | |
| | Hordeum vulgare | 1 | 9.2 | 3.5 | |
| | Hordeum vulgare | 1 | 7.6 | 4.0 | |
| >>>>>> | NO SEED | 1 | 4.4 | 3.5 | |
| | Hordeum vulgare | 2 | 14.1 | 3.9 | |
| | Hordeum vulgare | 1 | 9.7 | 4.2 | |
| | Hordeum vulgare | 1 | 7.2 | 4.0 | |
| | Hordeum vulgare | 1 | 7.4 | 2.5 | |

| Main Seed | Main Seeds | Weight(g) | TGW(g) | B-Stocking |
|-----------------|------------|-----------|--------|------------|
| Hordeum vulgare | 507 | 22.46 | 44.30 | 3 |
| | | | | |
| | | | | |



- 10-1-1

detection of half / broken corns



cluster detection



| В | С | D | Е | F | G | Н | 1 | J | K | L | M | N |
|------------|------------|-----------|--------|------------|-------|--------|---------|--------------|------------|------------|------------|-------|
| Main Seed | Main Seeds | Weight(g) | TGW(g) | B-Stocking | ØArea | ØWidth | ØLength | ØCircularity | ØL/W Ratio | Volume Wei | Date | Time |
| Hordeum vu | 507 | 22,46 | 44,3 | 3 | 20,9 | 3,6 | 8,5 | 1,6 | 2,4 | 56,1 | 31.03.2019 | 20:37 |
| | | | | | | | | | | | | |

export of sample data in xls format

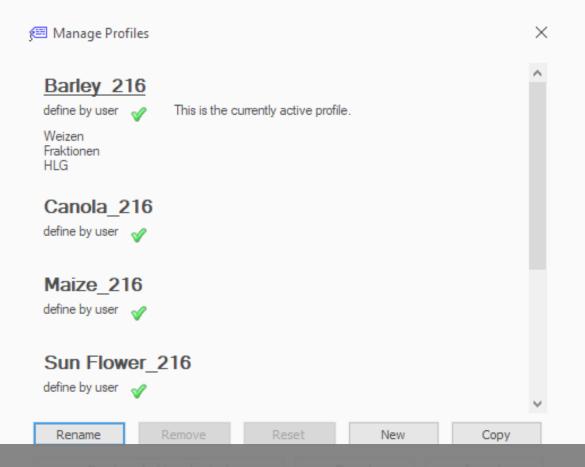


| A1 | . * | : × ✓ | <i>f</i> _∞ Type | ! | | | | | |
|----|-------------|----------|----------------------------|-----------|-----------|-------------|-----------|---|--|
| 4 | Α | В | С | D | Е | F | G | F | |
| 1 | Туре | Count As | Length(mm) | Width(mm) | Area(mm²) | Circularity | L/W Ratio | | |
| 2 | Hordeum vul | 1 | 8,6 | 3,9 | 23,3 | 1,5 | 2,2 | | |
| 3 | Hordeum vul | 1 | 11,0 | 3,5 | 24,7 | 2,0 | 3,1 | | |
| 4 | Hordeum vul | 1 | 8,7 | 3,4 | 20,5 | 1,7 | 2,6 | | |
| 5 | Hordeum vul | 1 | 8,4 | 4,1 | 24,4 | 1,5 | 2,0 | | |
| 6 | Hordeum vul | 1 | 8,1 | 3,3 | 18,0 | 1,6 | 2,5 | | |
| 7 | Hordeum vul | 1 | 8,6 | 4,1 | 24,5 | 1,5 | 2,1 | | |
| 8 | Hordeum vul | 1 | 8,8 | 4,0 | 23,5 | 1,5 | 2,2 | | |
| 9 | Hordeum vul | 1 | 8,5 | 3,5 | 21,3 | 1,6 | 2,4 | | |
| 10 | Hordeum vul | 1 | 8,2 | 3,6 | 20,1 | 1,5 | 2,3 | | |
| 11 | Hordeum vul | 1 | 11,1 | 3,6 | 24,7 | 2,0 | 3,1 | | |
| 12 | Hordeum vul | 1 | 8,1 | 4,0 | 22,1 | 1,5 | 2,0 | | |
| 13 | Hordeum vul | 1 | 8,1 | 3,6 | 21,3 | 1,5 | 2,2 | | |
| 14 | Hordeum vul | 1 | 8,7 | 3,2 | 17,8 | 1,9 | 2,7 | | |
| 15 | Hordeum vul | 1 | 8,0 | 2,9 | 15,1 | 1,8 | 2,7 | | |
| 16 | Hordeum vul | 1 | 8,5 | 4,0 | 23,9 | 1,5 | 2,1 | | |
| 17 | Hordeum vul | 1 | 8,1 | 3,7 | 20,1 | 1,5 | 2,2 | | |
| 18 | Hordeum vul | 1 | 10,8 | 4,1 | 28,9 | 1,7 | 2,6 | | |
| 19 | Hordeum vul | 1 | 8,7 | 4,1 | 25,1 | 1,5 | 2,1 | | |
| 20 | | - | | 2.5 | 22.2 | 4 7 | 2.5 | | |

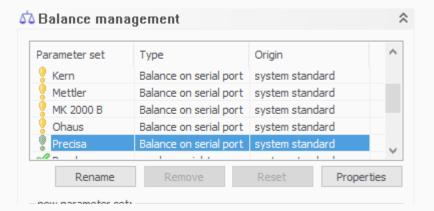
export of single corn data in xls format

| 27 | Hordeum vulg | 1 | 8,0 | 3,4 | 19,3 | 1,6 | 2,3 | |
|----|--------------|---|-----|-----|------|-----|-----|--|
| 28 | Hordeum vulg | 1 | 9,1 | 3,7 | 22,5 | 1,7 | 2,5 | |
| 29 | Hordeum vulg | 1 | 8,4 | 4,1 | 23,7 | 1,4 | 2,0 | |
| 20 | | 4 | 0.5 | 2.5 | 22.6 | 1.0 | 2.7 | |

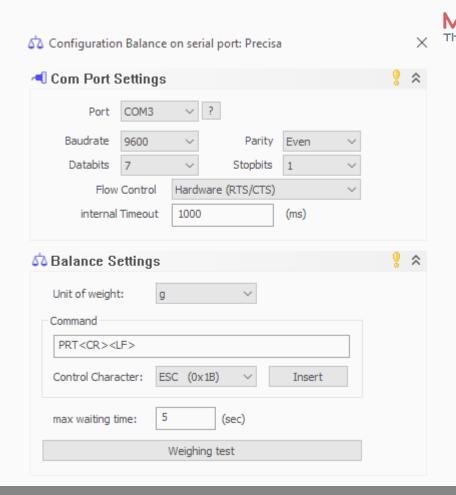




selection of different profils



Scales of manufacturers Kern, Mettler, Sartorius, Precisa, Ohaus are pre-configurate.



pre-configurate scales









integration of scanner and label-printer



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