

Supplementary Materials:

**Table S1.** Mean yield percentage (%± S.D.) of micronized samples and air-classified fractions (cv. Saragolla, Maestà and Iride). Same letter: no significant difference (p>0.05) within all fractions (F and G types) for each cultivar (n=2).

Air classified fractions														
Cultivar	F220	F230	F240	F250	F260	F270	F280	G220	G230	G240	G250	G260	G270	G280
Saragolla	20.8±0.3 <sup>m</sup>	32.2±2.8 <sup>i</sup>	44.6±1.3 <sup>h</sup>	71.5±0.5 <sup>e</sup>	83.1±0.1 <sup>c</sup>	90.9±0.5 <sup>bc</sup>	93.6±0.1 <sup>ab</sup>	79.0±0.4 <sup>cde</sup>	67.7±2.8 <sup>ef</sup>	55.3±1.5 <sup>g</sup>	27.9±0.4 <sup>ilm</sup>	16.5±0.3 <sup>mn</sup>	9.1±0.6 <sup>no</sup>	5.8±0.1 <sup>o</sup>
Maestà	27.5±5.9 <sup>m</sup>	35.2±4.8 <sup>im</sup>	45.5±0.8 <sup>him</sup>	75.4±5.4 <sup>e</sup>	89.8±1.1 <sup>ce</sup>	92.2±0.3 <sup>bce</sup>	94.4±0.6 <sup>abce</sup>	72.1±6.0 <sup>abcde</sup>	64.5±4.5 <sup>defh</sup>	54.1±0.6 <sup>defghi</sup>	24.4±5.2 <sup>hilm</sup>	9.3±0.4 <sup>lmn</sup>	7.5±0.4 <sup>lmn</sup>	5.3±0.8 <sup>mn</sup>
Iride	21.1±0.6 <sup>m</sup>	33.8±0.4 <sup>i</sup>	53.9±0.6 <sup>h</sup>	75.2±1.3 <sup>e</sup>	84.4±2.5 <sup>c</sup>	90.5±0.6 <sup>bc</sup>	92.0±0.3 <sup>abc</sup>	78.5±0.6 <sup>cde</sup>	65.5±0.4 <sup>f</sup>	46.1±0.6 <sup>g</sup>	24.8±1.3 <sup>lm</sup>	15.5±2.5 <sup>mn</sup>	9.4±0.4 <sup>n</sup>	8.0±0.3 <sup>n</sup>

**Table S2.** Mean ash content (% dry basis ± S.D.) of micronized samples and air-classified fractions (cv. Saragolla, Maestà and Iride). Same letter: no significant difference (p>0.05) within all fractions (F and G types) for each cultivar (n=2).

Air classified fractions															
Cultivar	Micronize d	F220	F230	F240	F250	F260	F270	F280	G220	G230	G240	G250	G260	G270	G280
Saragolla															
a	1.97±0.00	3.10±0.06 <sup>a</sup>	2.68±0.19 <sup>ab</sup>	2.38±0.00 <sup>bc</sup>	2.19±0.10 <sup>bcd</sup>	2.12±0.17 <sup>bcde</sup>	2.24±0.10 <sup>bcdef</sup>	1.97±0.01 <sup>cdefg</sup>	1.72±0.08 <sup>defg</sup>	1.60±0.09 <sup>defg</sup>	1.57±0.01 <sup>deg</sup>	1.50±0.11 <sup>eg</sup>	1.39±0.08 <sup>g</sup>	1.56±0.00 <sup>deg</sup>	1.32±0.05 <sup>g</sup>
Maestà	2.15±0.04	3.38±0.25 <sup>a</sup>	3.09±0.06 <sup>ab</sup>	2.79±0.00 <sup>abc</sup>	2.42±0.00 <sup>cd</sup>	2.19±0.13 <sup>cde</sup>	2.24±0.10 <sup>cdef</sup>	2.24±0.05 <sup>cdefg</sup>	1.77±0.11 <sup>defgh</sup>	1.72±0.08 <sup>efgh</sup>	1.67±0.00 <sup>efgh</sup>	1.64±0.02 <sup>efgh</sup>	1.58±0.08 <sup>efgh</sup>	1.56±0.07 <sup>eh</sup>	1.55±0.00 <sup>eh</sup>
Iride	1.97±0.00	2.99±0.07 <sup>a</sup>	2.47±0.10 <sup>b</sup>	2.15±0.02 <sup>bc</sup>	1.98±0.05 <sup>cd</sup>	1.99±0.00 <sup>cde</sup>	1.88±0.05 <sup>cdef</sup>	1.91±0.01 <sup>cdefg</sup>	1.51±0.10 <sup>fgh</sup>	1.55±0.16 <sup>defgh</sup>	1.32±0.04 <sup>h</sup>	1.64±0.05 <sup>defgh</sup>	1.65±0.01 <sup>defgh</sup>	1.53±0.01 <sup>d fgh</sup>	1.38±0.02 <sup>h</sup>

**Table S3.** Mean particle size content (% ± Standard Deviation) of micronized samples and air-classified fractions (cv. Saragolla, Maestà and Iride). Same letter: no significant difference (p>0.05) within all fractions (F and G types) for each cultivar (n=2).

Air classified fraction Micronized samples and air-classified fractions (particle size: ø > 425 µm)															
Cultivar	Micronized	F220	F230	F240	F250	F260	F270	F280	G220	G230	G240	G250	G260	G270	G280
Saragolla	9.73±0.06	38.29±3.44 <sup>b</sup>	6.22±0.57 <sup>c</sup>	6.32±1.23 <sup>ac</sup>	5.10±0.14 <sup>ac</sup>	6.09±0.33 <sup>ac</sup>	10.25±3.47 <sup>ab</sup> <sub>c</sub>	8.96±2.56 <sup>abc</sup>	12.45±1.96 <sup>a</sup> <sub>bc</sub>	12.22±2.17 <sup>a</sup> <sub>bc</sub>	13.98±0.42 <sub>abc</sub>	23.85±0.91 <sub>ab</sub>	32.20±3.01 <sub>ab</sub>	50.28±3.09 <sub>ab</sub>	51.25±2.9 <sup>s</sup> <sub>ab</sub>
Maestà	10.68±0.11	11.78±0.46 <sup>b</sup>	7.85±0.97 <sup>bc</sup>	5.24±0.10 <sup>bcd</sup>	3.95±0.77 <sup>ed</sup>	6.95±0.78 <sup>bc</sup> <sub>de</sub>	6.09±0.88 <sup>bcd</sup> <sub>de</sub>	7.66±0.61 <sup>abc</sup> <sub>d</sub>	12.96±0.65 <sup>a</sup> <sub>bcd</sub>	12.39±1.63 <sup>a</sup> <sub>bcd</sub>	15.31±1.12 <sub>abc</sub>	27.71±2.26 <sub>abc</sub>	45.22±0.62 <sub>abc</sub>	50.85±2.07 <sup>ab</sup> <sub>c</sub>	56.61±1.39 <sub>abc</sub>
Iride	11.38±0.40	9.50±0.17 <sup>b</sup>	5.66±0.12 <sup>b</sup>	4.91±0.42 <sub>b</sub>	3.98±0.67 <sub>b</sub>	6.32±0.18 <sup>b</sup>	7.03±0.45 <sup>b</sup>	7.49±0.67 <sup>bc</sup>	8.87±2.28 <sup>abc</sup>	11.89±1.30 <sup>a</sup> <sub>bc</sub>	13.14±0.71 <sub>abc</sub>	32.46±2.77 <sub>abc</sub>	40.08±1.54 <sub>abc</sub>	48.68±1.11 <sub>ab</sub>	52.31±2.15 <sub>ab</sub>

Micronized samples and air-classified fractions (particle size: 425 µm > ø > 180µm)															
Cultivar	Micronized	F220	F230	F240	F250	F260	F270	F280	G220	G230	G240	G250	G260	G270	G280
Saragolla	43.66±1.84	46.29±0.69 <sup>i</sup>	61.39±2.96 <sup>c</sup>	46.97±1.20 <sup>hl</sup>	47.25±0.22 <sup>ghl</sup>	50.22±1.15 <sup>ceghl</sup>	46.91±2.69 <sup>e</sup> <sub>ghil</sub>	53.30±1.34 <sup>c</sup> <sub>deghil</sub>	48.12±1.51 <sup>cdefg</sup> <sub>hil</sub>	55.43±0.55 <sup>cdefgh</sup> <sub>il</sub>	63.09±0.32 <sup>bcd</sup> <sub>de</sub>	72.95±0.24 <sup>a</sup>	65.23±0.57 <sup>a</sup> <sub>bcd</sub>	49.43±3.00 <sup>bcd</sup> <sub>eghil</sub>	48.52±2.84 <sup>cd</sup> <sub>eghil</sub>
Maestà	49.95±1.13	68.37±2.22 <sup>b</sup>	54.28±2.16 <sup>bf</sup>	41.07±2.01 <sub>n</sub>	48.55±0.41 <sup>fmn</sup>	52.26±0.46 <sup>im</sup>	52.36±0.58 <sup>f</sup> <sub>him</sub>	53.21±0.97 <sup>f</sup> <sub>ghim</sub>	51.50±1.31 <sup>fghil</sup> <sub>m</sub>	56.51±0.29 <sup>bdfghi</sup> <sub>lm</sub>	64.51±1.98 <sup>bcd</sup> <sub>ef</sub>	70.33±1.51 <sup>a</sup>	54.28±0.54 <sup>bcd</sup> <sub>eg</sub>	48.82±1.92 <sup>defg</sup> <sub>him</sub>	43.19±1.32 <sup>lm</sup> <sub>n</sub>
Iride	44.92±0.53	69.86±1.32 <sup>b</sup>	49.86±1.80 <sup>i</sup>	38.13±0.24 <sub>n</sub>	41.56±0.65 <sup>imn</sup>	50.59±0.13 <sup>hi</sup>	52.73±2.77 <sup>f</sup> <sub>hi</sub>	51.93±1.85 <sup>f</sup> <sub>ghi</sub>	46.66±2.12 <sup>fghil</sup> <sub>m</sub>	55.98±1.40 <sup>befghi</sup> <sub>l</sub>	71.14±1.06 <sup>abc</sup> <sub>ef</sub>	66.17±2.67 <sup>al</sup> <sub>fg</sub>	59.37±1.48 <sup>abcd</sup> <sub>hi</sub>	50.90±1.09 <sup>defg</sup> <sub>hil</sub>	47.41±2.26 <sup>efg</sup> <sub>him</sub>

Micronized samples and air-classified fractions (particle size: 180µm > ø)															
Cultivar	Micronized	F220	F230	F240	F250	F260	F270	F280	G220	G230	G240	G250	G260	G270	G280
Saragolla	46.60±1.78	15.81±2.75 <sup>h</sup>	32.40±3.52 <sup>s</sup>	46.71±2.43 <sup>bg</sup>	47.65±0.37 <sup>abg</sup>	43.69±0.82 <sup>ab</sup> <sub>cg</sub>	42.84±0.78 <sup>abcd</sup> <sub>g</sub>	37.74±3.90 <sup>abc</sup> <sub>d</sub>	39.43±3.47 <sup>abc</sup> <sub>def</sub>	32.35±2.73 <sup>abc</sup> <sub>def</sub>	22.93±0.74 <sup>bc</sup> <sub>defg</sub>	3.20±0.67 <sup>i</sup>	2.57±2.44 <sup>i</sup>	0.29±0.09 <sup>i</sup>	0.23±0.14 <sup>i</sup>
Maestà	39.01±0.80	19.85±1.76 <sup>g</sup>	37.87±3.13 <sup>f</sup>	53.69±2.11 <sup>af</sup>	47.50±1.17 <sup>abf</sup>	41.49±1.24 <sup>ab</sup> <sub>df</sub>	41.55±1.46 <sup>abcd</sup> <sub>f</sub>	39.13±0.36 <sup>abc</sup> <sub>def</sub>	35.53±1.96 <sup>bc</sup> <sub>def</sub>	31.10±1.34 <sup>c</sup> <sub>defg</sub>	20.18±3.10 <sup>g</sup>	1.96±0.75 <sup>h</sup>	0.50±0.08 <sup>h</sup>	0.34±0.16 <sup>h</sup>	0.20±0.07 <sup>h</sup>
Iride	43.16±0.79	20.64±1.15 <sup>e</sup>	44.48±1.92 <sup>c</sup>	56.96±0.17 <sup>ac</sup>	54.46±0.02 <sup>abc</sup>	43.09±0.31 <sup>ab</sup> <sub>cf</sub>	40.24±3.21 <sup>bc</sup> <sub>efg</sub>	40.58±2.52 <sup>bc</sup> <sub>ef</sub>	44.47±4.40 <sup>abc</sup> <sub>defg</sub>	32.13±2.70 <sup>cd</sup> <sub>efg</sub>	15.72±0.36 <sup>e</sup>	1.38±0.10 <sup>h</sup>	0.55±0.05 <sup>h</sup>	0.41±0.02 <sup>h</sup>	0.28±0.11 <sup>h</sup>