ZP Hybrids

yield to be proud of

Maize Research Institute
ZEMUN POLJE
Serbia, Belgrade

www.mrizp.rs
### EARLY MATURING, GRAIN QUALITY

**ZP 161**

- **FAO 200**
  - Kernel Type: orange semi-flint,
  - Usage: Mainly for grain production, in some conditions for silage
  - Early maturing, good grain quality
  - Sowing density: 75-80000 plants per hectare

**Grain Quality:**
- Starch: 67.6%
- Protein: 10.0%
- Oil: 5.8%

### EARLY MATURING, STABLE YIELDS

**ZP 280**

- **FAO 260**
  - Kernel Type: Semi-dent,
  - Usage: Mainly for grain production, in some conditions for silage
  - Early maturing, stable
  - Sowing density: 72-77000 plants per hectare

**Grain Quality:**
- Starch: 69.8%
- Protein: 9.8%
- Oil: 5.5%
**ZP 299**

**Stable Yields, Low Harvest Moisture**

**FAO 300**
- Kernel Type: Yellow dent,
- Usage: For grain production
- Stable yields, excellent dry-down
- Sowing density: 70-75000 plants per hectare

**Grain Quality:**
- Starch: 69,9 %
- Protein: 9,4 %
- Oil: 4,9 %

**Evaluation of Hybrid Traits**
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

**Evaluation of Agronomic Traits**
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair  5 excellent

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**ZP 305**

**Stable Yields**

**FAO 360**
- Kernel Type: Yellow dent,
- Usage: Mainly for grain production, in some conditions for silage
- Good performance in different growing conditions
- Sowing density: 65-70000 plants per hectare

**Grain Quality:**
- Starch: 69,2 %
- Protein: 9,6 %
- Oil: 4,5 %

**Evaluation of Hybrid Traits**
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

**Evaluation of Agronomic Traits**
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair  5 excellent
ZP 335
LOW HARVEST MOISTURE

FAO 330
- Kernel Type: Yellow dent,
- Usage: For grain production
- Stable yields, low moisture content in harvest
- Sowing density: 65-70000 plants per hectare

Grain Quality:
- Starch: 70,1 %
- Protein: 9,5 %
- Oil: 5,3 %

Evaluation of hybrid traits
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair 5 excellent

ZP 341
GOOD DROUGHT TOLERANCE

FAO 380
- Kernel Type: Yellow dent,
- Usage: For grain production
- High adaptability, good drought tolerance
- Sowing density: 65-70000 plants per hectare

Grain Quality:
- Starch: 70,2 %
- Protein: 10,0 %
- Oil: 4,5 %

Evaluation of hybrid traits
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair 5 excellent
### CEDA

**Stable Yields**
- FAO 380
- Kernel Type: Yellow dent
- Usage: Mainly for grain production, in some conditions for silage
- High adaptability
- Sowing density: 65-70000 plants per hectare

**Grain Quality:**
- Starch: 70.5%
- Protein: 9.8%
- Oil: 5.1%

### ZPSC 388

**High Yield Potential**
- FAO 390
- Kernel Type: Yellow dent
- Usage: For grain production
- High yield potential, intended for intensive growing practices
- Sowing density: 65-70000 plants per hectare

**Grain Quality:**
- Starch: 69.0%
- Protein: 9.6%
- Oil: 5.8%
### FOR INTENSIVE PRODUCTION

**ZP 4007**

**FAO 420**
- Kernel Type: Yellow dent
- Usage: for grain production
- High yield potential, good performance under intensive growing practices
- Sowing density: 65-70000 plants per hectare

**Grain Quality:**
- Starch: 69,1 %
- Protein: 10,2 %
- Oil: 5,3 %

### EXCEPTIONALLY YIELDING

**ZP 427**

**FAO 400**
- Kernel Type: Yellow dent
- Usage: For grain production
- Exceptionally yielding, good adaptability
- Sowing density: 65-70000 plants per hectare

**Grain Quality:**
- Starch: 70,5 %
- Protein: 9,8 %
- Oil: 5,1 %

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#### Evaluation of hybrid traits

<table>
<thead>
<tr>
<th>Trait</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield</td>
<td>5</td>
</tr>
<tr>
<td>Drought tolerance</td>
<td>5</td>
</tr>
<tr>
<td>Grain quality</td>
<td>5</td>
</tr>
<tr>
<td>Resistance to lodging</td>
<td>5</td>
</tr>
<tr>
<td>Evaluation of resistance to diseases and pests</td>
<td>5</td>
</tr>
<tr>
<td>European corn borer</td>
<td>5</td>
</tr>
<tr>
<td>Common smut of maize</td>
<td>5</td>
</tr>
<tr>
<td>Ear mouldiness</td>
<td>5</td>
</tr>
<tr>
<td>Northern corn leaf blight</td>
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</tr>
</tbody>
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#### Evaluation of agronomic traits

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<tbody>
<tr>
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<td>Early growth</td>
<td>5</td>
</tr>
<tr>
<td>Stay green</td>
<td>5</td>
</tr>
<tr>
<td>Dry down rate</td>
<td>5</td>
</tr>
</tbody>
</table>

1 fair 5 excellent
GOOD DROUGHT TOLERANCE

FAO 400
- Kernel Type: Yellow dent
- Usage: for grain production
- High adaptability, very good drought tolerance
- Sowing density: 65-70000 plants per hectare

Grain Quality:
- Starch: 69.5 %
- Protein: 10.6 %
- Oil: 5.1 %

Evaluation of hybrid traits
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair  5 excellent

HIGH YIELD POTENTIAL, GRAIN QUALITY

FAO 500
- Kernel Type: Yellow dent
- Usage: For grain production
- High yield potential, grain quality
- Sowing density: 60000 plants per hectare

Grain Quality:
- Starch: 71.7 %
- Protein: 10.5 %
- Oil: 4.7 %

Evaluation of hybrid traits
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair  5 excellent
ZP 560

EXCEPTIONALLY YIELDING

FAO 500
- Kernel Type: Yellow dent
- Usage: for grain production
- High yield potential, intended for intensive growing practices
- Sowing density: 60000 plants per hectare

Grain Quality:
- Starch: 70,0 %
- Protein: 11,2 %
- Oil: 5,6 %

Evaluation of hybrid traits

Yield
Drought tolerance
Grain quality
Resistance to lodging
Evaluation of resistance to diseases and pests
European corn borer
Common smut of maize
Ear mouldiness
Northern corn leaf blight

1 fair
5 excellent

SMEDEREVO

HIGH YIELD POTENTIAL, GOOD STABILITY

FAO 600
- Kernel Type: Yellow dent
- Usage: For grain production
- High yield potential, high adaptability
- Sowing density: 60000 plants per hectare

Grain Quality:
- Starch: 70,0 %
- Protein: 11,2 %
- Oil: 5,6 %

Evaluation of hybrid traits

Yield
Drought tolerance
Grain quality
Resistance to lodging
Evaluation of resistance to diseases and pests
European corn borer
Common smut of maize
Ear mouldiness
Northern corn leaf blight

1 fair
5 excellent
FOR GRAIN AND SILAGE PRODUCTION

**ERIIKO**

**FAO 600**
- Kernel Type: Yellow dent
- Usage: For grain and silage production
- High grain and silage potential
- Sowing density: 55-60000 plants per hectare for grain production, 65-70000 for silage
- Silage yield: >55t/ha

**Grain Quality:**
- Starch: 71,1 %
- Protein: 9,7 %
- Oil: 4,5 %

**Evaluation of hybrid traits**
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

**Evaluation of agronomic traits**
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair to 5 excellent

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**ZP 717**

**FAO 700**
- Kernel Type: Yellow dent
- Usage: For grain and silage production
- High grain and silage yield potential
- Sowing density: 55-60000 plants per hectare for grain production, 65-70000 for silage
- Silage yield: 55-60 t/ha

**Grain Quality:**
- Starch: 70,2 %
- Protein: 10,1 %
- Oil: 5,4 %

**Evaluation of hybrid traits**
- Yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

**Evaluation of agronomic traits**
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair to 5 excellent
FOR SILAGE PRODUCTION

FAO 700
- Kernel Type: Yellow dent
- Usage: For grain and silage production
- High grain and silage yield potential
- Sowing density: 55-60000 plants per hectare for grain production, 65-70000 for silage
- Silage yield: 60t/ha

Grain Quality:
- Starch: 74,2 %
- Protein: 9,4 %
- Oil: 5,8 %

Evaluation of hybrid traits
- Silage yield
- Drought tolerance
- Grain quality
- Resistance to lodging
- Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth
- Stay green
- Dry down rate

1 fair  5 excellent

FOR HUMAN CONSUMPTION AND INDUSTRIAL PROCESSING

FAO 500
- Kernel Type: Yellow sweet corn
- Usage: for fresh human consumption and industrial processing
- High yield potential, intended for intensive growing practices
- Sowing density: 60000 plants per hectare
- Days from field emergence to harvest: 83-85

Grain Quality:
- Sucrose: 66.83mg/g DW
- Fructose: 18.93 mg/g DW
- Glucose: 20.78 mg/g DW

Evaluation of hybrid traits
- Fresh ear yield
- Drought tolerance
- Resistance to lodging
- Ear length: 18 cm
- Number of kernels per row: 14-16
- Shelling percentage: 67%

Evaluation of resistance to diseases and pests
- European corn borer
- Common smut of maize
- Ear mouldiness
- Northern corn leaf blight

Evaluation of agronomic traits
- Emergence
- Early growth

1 fair  5 excellent
SANELA

GOOD YIELD POTENTIAL, GOOD STABILITY

- Maturity group 0
- Stem of unlimited growth type
- Fuzz Color: slightly gray
- Flowers color: purple
- Grain color: yellow
- Hilum color: light brown
- Weight of 1000 grains 150 g
- Genetic yield potential: over 4.5 t / ha
- Optimum crop density: 500,000 plants / ha
- Good adaptability
- Good tolerance to drought conditions

<table>
<thead>
<tr>
<th>Characteristics of the variety</th>
<th>Yield</th>
<th>Lodging tolerance</th>
<th>Drop resistance</th>
<th>Oil content</th>
<th>Protein content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>≈ 21%</td>
<td>≈ 38%</td>
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</tbody>
</table>

LAURA

HIGH YIELDING, KUNITZ-TRYPSIN FREE

- Maturity group 1
- Stem of indeterminate growth type
- Fuzz Color: tawny
- Flowers color: white
- Grain color: yellow
- Hilum color: black
- Weight of 1000 grains 195 g
- Genetic yield potential: over 5 t / ha
- Optimum crop density: 450,000 plants / ha
- Good adaptability
- Good tolerance to drought conditions
- Special traits: Kunitz-free grain type, utilization without thermal treatment for adult monogastic animals only

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<tr>
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<td>10</td>
<td>10</td>
<td>≈ 21%</td>
<td>≈ 40%</td>
</tr>
</tbody>
</table>
HIGH YIELD POTENTIAL, FOR MALTING PRODUCTION

Winter malting barley variety

- Two-row spike
- Medium early maturity
- Stem height around 80-85 cm, with good resistance to lodging
- Good resistance to powdery mildew and leaf rust
- 1000-grain weight around 45 g/DM
- Test weight around 77 kg
- Protein content around 10%
- Fine extract content 78-81%
- High yield potential, over 10 t/ha, very adaptable, good grain quality for malting production may be achieved under suitable agrotechnical conditions.
- Seeding rate 350-400 viable seeds per m²

GOOD YIELD POTENTIAL, HIGH PROTEIN CONTENT

Winter soft wheat

- Quality Class A1
- Stem height 80-85 cm.
- White spike with white awns
- Medial resistance to low temperatures
- Good resistance to lodging, rust and mildew and to shattering
- 1000-grain weight around 46 g/DM
- Test weight > 78 kg
- Protein content around 15%
- Gluten content > 32%
- High yield potential, between 9-11 t/ha
- Seeding rate 500-550 viable seeds per m²