PRODUCT DATA SHEET

30.50

Millet species: A comparison

BOTANICAL NAME	Sorghum bicolor x Sorghum sudanense	Sorghum bicolor	Sorghum sudanense	Setaria italica
ENGLISH COMMON NAME	Sorghum-Sudan grass hybrid	Sorghum	Sudan grass	Foxtail millet
GERMAN COMMON NAME	Sorghum-Sudangras-Hybride	Mohrenhirse, Sorghumhirse, Futterhirse	Sudangras	Kolbenhirse
FAMILY	Poaceae (grasses)	Poaceae (grasses)	Poaceae (grasses)	Poaceae (grasses)
ORIGIN	Africa	Africa	Africa	China
CHROMOSOME NUMBER	-	2n = 20	2n = 20	2n = 18
GROWING PERIOD	Annual	Annual	Annual	Annual
SEEDING RATE (KG/HA)	15–30	30-45	15–30	8–10
DISTANCE BETWEEN ROWS (CM)	25–30	30–75	10–30	30–50
MORPHOLOGICAL DIFFERENCES				
HEIGHT	Up to 2.5 m	Up to 4.5 m	Up to 3 m	Up to 1.3 m
STALK	Medium stalk, diameter ~1.3-1.8 cm, intermediate tillering	Thick stalk, diameter up to $\sim\!2.5$ cm, tillering nearly absent to abundant	Thin stalk, diameter \sim 1 cm, very abundant tillering	Thin stalk, diameter up to 1 cm
LEAVES	Glabrous, 15-45 cm long by 2-5 cm wide	Glabrous, 30-80 cm long by 5-7 cm wide	Glabrous, 15-30 cm long by 1-3 cm wide	Glabrous, 15-45 cm long by 1.5-2.5 cm wide
LEAF SHAPE	Lanceolate	Lanceolate	Lanceolate	Linear-lanceolate
FLOWER COLOUR	Red, brown	Red, purple, brown	Brown, red, yellowish	Yellow, brown, orangey, purple
INFLORESCENCE	Panicle, 15-40 cm long	Very dense panicle up to 50 cm long	Loose panicle with thin spikelets	Thick spike-like panicle, 10-30 cm long
NUMBER OF SEEDS PER FRUIT	1	1	1	1
SEED COLOUR	Light brown, reddish, yellowish, dark brown	Light brown, whitish, red, dark brown	Multicoloured, dark brown, yellow	Yellowish, red, dark brown
AVG. TGW (G)	20	25	15	2.8

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Panicum miliaceum
Proso millet, common millet, true millet
Rispenhirse
Poaceae (grasses)
Asia
2n = 18
Annual
8–12
30–50

Up to 1.5 m

Thin stalk, diameter up to ~1 cm, hairy, intermediate tillering

Pilous, 10-30 cm long by 1-2.5 cm wide

Linear-lanceolate

Brown, yellowish, reddish, purple

Compact, spike-like panicle 10-40 cm long

1

Whitish, creamy, red, dark brown, yellowish



PRODUCT DATA SHEET

Millet species: A comparison

BOTANICAL NAME	Sorghum bicolor x Sorghum sudanense	Sorghum bicolor	Sorghum sudanense	Setaria italica
SOIL REQUIREMENTS	Grows on nearly all soils, prefers permeable loams	Grows on nearly all soils, prefers permeable loams	Prefers dry, warm sites; cool, inactive or waterlogged sites with high clay content are not recommended	Grows on nearly all soils, prefers permeable loa
PH VALUE	5.5-8.0	5.0-8.5	5.5-7.5	5.5–7.0
TOLERANCE OF WATER- Logging	Low	Low to medium	Low	Low
ADAPTATION TO HEAT AND DROUGHT	Very good	Good	Good	Medium to good
VARIETIES	-	Intermediate level of breeding activity	Intermediate level of breeding activity	Intermediate level of breeding activity
CONTENT (RELATIVE TO DRY WEIGHT)	Variety SUSU: 5.8 MJ NEL 26% DM content 6% Protein 27.2% Crude fibre 69.7% Digestibility	Grains: 10.5% Protein 70% Carbohydrates 6.8% Dietary fibre 3.4% Fat	Variety PIPER: 5.6 MJ NEL 29.4% DM content 6.5% Protein 28.2% Crude fibre 68.2% Digestibility	Grains: 9-12% Protein 68% Carbohydrates 8% Dietary fibre
TOLERANCE OF GRAZING	Low	-	Low	-
TOLERANCE OF ORGANIC FERTILISER	Low to medium	Low to medium	Very low	Low to medium
IMPORTANCE AND USE	 With respect to stem thickness and regrowth/tillering capacity → Sorghum occupies an intermediate position between Sudan grass and forage sorghum Hybrid character: → Sorghum is suitable for use in rotations geared towards feed or energy crops Low water requirements → The species is a good alternative to maize 	Greening Important cereal species for human consumption Use as forage possible → Use for silage Due to its low capacity for regrowth, it can realistically only be cut once Forage sorghum: special form → Sweet sorghum; high sugar content in the stem	Used for biogas Hay and silage production High tillering capacity and high regrowth potential Can be cut multiple times Undesirable lignification after flowering → Adjust cutting date Rapid development after sowing → Especially suitable as a second/catch crop (also/especially	In Germany, non-threshed infructescences are of for pet birds (e.g. cockatiels, budgies) and small finches and sparrows) Well-suited for cultivation on poor soils Differentiated based on the size of the panicle I → Maxima race Larger grains more loosely arranged → Moharia race Smaller, more compact panicles



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	Panicum miliaceum
ms	Grows on nearly all soils, preferring lighter, permeable loams, sites that are too acidic or wet are not recommended
	5.5–7.0
	Low
	Good
	Low breeding activity
	Grains: 10-16% Protein 70% Carbohydrates 2% Fat
	-
	Low to medium
used as bird feed I birds (such as	Grain production Suitable for human consumption: gluten-free, low glycaemic index
oranches:	Primarily used as birdseed Seeds are readily consumed by the bobwhite quail, mourning dove, common pheasant, wild turkey, and songbirds Very well suited for cultivation on marginal sites