

# FORAGE



## GROWER'S GUIDE to Forage



[www.ArrowSeed.com](http://www.ArrowSeed.com)



**PO Box 722  
Broken Bow, NE 68822  
1-800-622-4727**

***[info@ArrowSeed.com](mailto:info@ArrowSeed.com)***



# Quality Pays

When you look at the investment you have in your cattle, it doesn't make "cents" to cut corners on forage. New and improved summer annual forages from **Arrow Seed** offer:

- Better palatability
- Better digestibility
- More efficient feed use
- More tons per acre
- More pounds of beef or milk per acre

No matter how you measure performance, summer annual forages from **Arrow Seed** really pay off.

The full complement of forages available at **Arrow Seed** gives producers a wide range of options to choose from, ensuring selection of the right feed for their livestock and farm. With high-quality forages matched to your acres, end use and management, our up-to-date, high-performing genetics and quality seed make the difference.







# Sorghum-Sudan Hybrids

Best use is for pasture or hay. Combines the leafiness of forage sorghums with the regrowth of sudangrass. BMR types are more palatable and digestible with less fiber and less feeding waste. Harvest before heading is critical to feed quality, tonnage and regrowth. Use sorghum-sudan for freeze-down grazing only after the plant is completely dead.

**Pasture:** Start grazing at 24 inches, maintain under 36 inches and above 4 inches.

**Hay:** 36 inches to 48 inches tall, cut before heading for optimum quality. Cut at 3 to 4 inches to break crown dormancy and maximize tillering for regrowth.

**Planting Dates:** May 20 to Aug. 1, 60° F minimum soil temperature for germination.

KIND	SEEDING RATE	MALE STERILE	BEST USE	DAYS BLOOM/ MATURITY**	SEEDS/ LB.
BROWN MID-RIB					
1ST CHOICE BMR	30-50/12-16	NO	H,G,S	70/100	16,500
HONEY GRAZE BMR	30-50	NO	H,G	50/80	16,500
GRAZEX BMR 801	25-40	YES	H,G	50/80	21,000
CONVENTIONAL					
HAY N GRAZE	20-35	NO	H,G	50/80	20,000
HONEY GRAZE V	25-40	NO	H,G	70/100	16,000
GRAZEX III	25-40	NO	H,G	50/80	15,000

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G



## ***1st Choice BMR Sorghum-Sudan***

1st Choice BMR was way ahead of its time when released 10-plus years ago, and continues to be the gold standard for forage breeders. This multipurpose forage is shorter in height with slightly broader leaves and a tight internode spacing that forms a compact, high-yielding plant. Same height as most brachyotics until it starts to extend the flag leaf and stalk. Palatability and feed quality of 1st Choice BMR is second to none, continually at the top for animal grazing preference and performance. 1st Choice BMR is unique in its #2 quality, tannin-free grain production, which adds to the value when used for silage. 1st Choice BMR is also eligible for silage LDP and RMA silage insurance. This gene-12 BMR position has superior quality and digestibility compared to gene-6 BMRs. Approximately 16,500 seeds per pound.



## ***Honey Graze BMR Sorghum-Sudan***

This hybrid has fine stems and long, narrow leaves on multi-tillered plants. Excellent standability, regrowth and palatability. Slightly taller than 1st Choice BMR, with a semi-juicy plant texture. Outstanding for multi-cut hay or direct grazing. This gene-12 BMR position has superior quality and digestibility compared to gene-6 BMRs. Approximately 16,500 seeds per pound.

## ***Grazex BMR 801 Sorghum-Sudan***

This sterile hybrid has excellent yield potential in a wide variety of environments. Slightly earlier maturity than 1st Choice BMR or Honey Graze BMR. Very good hay or pasture crop, with excellent response to irrigation. Will not produce viable seed unless planted with a pollinator sorghum. This gene-12 and -18 BMR position has superior quality and digestibility compared to gene-6 BMRs. Approximately 21,000 seeds per pound.

## ***Grazex III Sorghum-Sudan***

A medium-early, conventional hybrid with higher yield potential than Grazex II, the longtime standard. Acceptable forage quality when harvested early or grazed to suppress stem formation. Excellent choice for high pH soils or soils with marginal fertility. Approximately 15,000 seeds per pound.





## ***Honey Graze V Sorghum-Sudan***

This is a full-season, conventional sorghum-sudan hybrid with very high tonnage potential and excellent forage quality. Higher protein and digestibility than other conventional sorghum-sudan hybrids. Excellent tillering and regrowth with high green leaf retention. Superior drought resistance, delayed maturity and excellent standability provide more tonnage and a wider window for harvest. Approximately 16,000 seeds per pound.

## ***Hay N Graze Sorghum-Sudan***

A medium-early, three-way cross juicy plant with high tonnage potential and very good forage quality. You will find this hybrid has excellent tillering and regrowth with a high green leaf retention. Add good drought tolerance and standability to make this the standard bale feed on many farms. Approximately 20,000 seeds per pound.





# Hybrid Forage Sorghums

Use for single-cut bale feed or add a pollinator like Rox Orange for silage. Will not produce viable seed unless open-pollinated forage is planted with or nearby. All have improved leafiness, better seedling vigor and excellent yield potential. These hybrids are variable in their regrowth potential, but generally will not regrow like a sorghum-sudan.

**Hay:** Cut in early bloom to milk dough stage.

**Grazing:** Standing or in a windrow after killed by freeze.

**Silage:** Add pollinator if male-sterile, harvest in soft dough stage.

**Planting Dates:** June 1 to July 15, 62° F minimum soil temperature.

KIND	SEEDING RATE	MALE STERILE	BEST USE	DAYS BLOOM/ MATURITY**	SEEDS/ LB.
CANEX	30-50	YES	H,F	70/105	20,500
CANEX BMR 210	30-50/8-12	NO	H,F,S	70/105	23,000
CANEX BMR 600	30-50	YES	H,F	85/120	16,000
SUG R BALE	30-50	YES	H,F	75/110	18,500
SUG R BALE BMR	30-50	YES	H,F	85/120	16,000

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G

\*\*Approximate





## ***Canex Hybrid Forage Sorghum***

As the standard hybrid in the industry, this male-sterile, medium-early hybrid is noted for drought tolerance and high-stem sugar with high feed values for a conventional sweet sorghum. Approximately 20,500 seeds per pound.

## ***Sug R Bale Hybrid Forage Sorghum***

A male-sterile, medium-late hybrid that is approximately five days longer than Canex. This one is all about the tonnage. Slightly more yield potential than Canex with slightly less stem sugar and forage quality. Moderate regrowth potential in the right environment. Approximately 18,500 seeds per pound.

## ***Canex BMR 210 Hybrid Forage Sorghum***

A fertile, medium maturity BMR forage sorghum, ideal for dry-land production of hay, silage or standing hay deferred until after freeze down. Good grain production plus tall, excellent quality forage lend to great silage potential. Unsurpassed forage quality, with gene-12 and -18 BMR, position this hybrid as extremely palatable with less waste. Approximately 23,000 seeds per pound.

## ***Canex BMR 600 Hybrid Forage Sorghum***

A male-sterile, medium-late hybrid with excellent drought tolerance coupled with high yield potential under favorable conditions. Eighty to ninety days to mid-bloom and 8 to 9 feet tall at maturity. Highly palatable with gene-12 and -18 BMR position for superior feed value and digestibility compared to gene 6 BMRs. Slightly more lodging potential than Canex BMR 210. Approximately 16,000 seeds per pound.



## ***Sug R Bale BMR Hybrid Forage Sorghum***

A partially sterile, medium-full hybrid with large stems and the ability to stand offers a very high yield potential. Eighty five to ninety five days to mid-bloom and 8 to 9 feet tall at maturity. Excellent green leaf retention with very good palatability and forage quality. Best used as single-cut hay, haylage or silage. This gene-12 position has superior quality and digestibility compared to gene-6 BMRs. Approximately 16,000 seeds per pound.







# Hybrid Silage Sorghums

Open-pollinated hybrid sorghums with combination of high forage and grain yield. Best used as silage. High grain to stover ratio makes higher energy silage. These silage hybrids are eligible for LDP. Produce silage tonnage similar to corn on 50% less water.

**Hay:** Single cut at boot to early heading.

**Grazing:** Not recommended.

**Silage:** Harvest in soft dough stage.

**Planting Dates:** May 20 to June 20, 60° F minimum soil temperature.

Kind	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**	Seeds/ lb
SILOMOR II BMR	6-10	NO	S	75/105	17,000
SILO-MOR II	6-10	NO	S	85/115	15,500
CANEX BMR 210	30-50/8-10	NO	H,S,F	70/105	23,000

USE: Hay=H, Freeze-Down Feed=F, Silage=S,Grazing=G

\*\*Approximate



## ***SiloMor II BMR Hybrid Silage Sorghum***

This medium-season hybrid is close to SiloMor II, to which the BMR trait has been added. Its high grain yield of 5,000+ lbs/acre on strong, sturdy stems of 6 to 7 feet tall makes this hybrid an outstanding silage performer with 20 tons-plus silage production potential. Because the hybrid has such a high grain-stover ratio, animal performance is excellent in both the feedlot and dairy. Excellent tillering capacity and near simultaneous flowering of main and tiller panicles. This gene-12 position hybrid has superior quality and digestibility compared to gene-6 BMRs. Approximately 17,000 seeds per pound.

## ***SiloMor II Hybrid Silage Sorghum***

This full-season hybrid produces a very high grain yield (6,000 lbs/A) on strong, sturdy stems 6 to 7 feet tall. Its high-grain-to-stover ratio significantly increases digestible dry matter per unit acre as silage. The high-protein content and total digestible nutrients make this an excellent choice for the feedlot or dairy. Approximately 15,500 seeds per pound.

# Forage Sorghums - Open Pollinated

Best planted on dryland and used for hay, bundle feed or freeze-down winter grazing. Harvest once for hay in soft dough stage. Good ability to tolerate periods of drought.

**Planting Dates:** June 1 to July 15, 60° F minimum soil temperature.

VARIETY	Seed Color	Seed Count	Characteristics
EARLY SUMAC	DARK RED	32,000/LB.	FINE STEM, 4' TO 6', 60 DAYS TO FLOWER
ROX ORANGE	BROWN	28,000/LB.	MEDIUM STEM, SWEET STALK, 4.5' TO 6.5', 75 DAYS TO FLOWER
HEGARI	WHITE	17,000/LB.	MEDIUM STEM, GOOD GRAIN PRODUCTION, 3.5' TO 5', 70 DAYS TO FLOWER

KIND	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**
EARLY SUMAC	25-50	NO	H,F	60/95
ROX ORANGE	30-50	NO	H,F	75/105
HEGARI	35-50/10-15	NO	H,F,S	70/100

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G

\*\*Approximate





# Foxtail Millet

Fine-stemmed, leafy hay with lower water requirement and fast drydown. Do not use for pasture. Must be harvested in boot to early heading stage. Creates excellent stubble after harvest for fall grass or alfalfa plantings. Approximately 220,000 seeds per pound.

VARIETY	SEED COLOR	CHARACTERISTICS
GERMAN STRAIN R	Yellow	Long season, 75 day, 3.5' to 5', medium stems
GOLDEN GERMAN	Golden	Medium season, 65 day, 3' to 4', fine stems
WHITE WONDER	White	Medium season, 60 day, 3' to 4', fine stems
SIBERIAN	Orange	Short season, 45 day, 2.5' to 3.5', very fine stems
JAPANESE	Reddish	Short season 50 day, 2.5' to 3.5', flooding tolerant

**Planting Date:** May 25 to July 10

KIND	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**
GERMAN STRAIN R	12-20	NO	H	75/90
GOLDEN GERMAN	12-20	NO	H	65/85
WHITE WONDER	12-20	NO	H	60/80
SIBERIAN MILLET	12-20	NO	H	45/65
JAPANESE MILLET	12-20	NO	H	50/70

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G

\*\*Approximate





# Other Summer Forages

## Elite II Hybrid Pearl Millet

At 6 to 8 feet, this medium-tall hybrid reaches boot stage in 70 days. Regrows quickly after cutting. Elite II also tillers profusely with abundant wide leaves and fine stems, making excellent-quality hay. High-quality hay seems to ‘shine up’ cattle coats, making it a great show feed. Very high-quality, palatable hay with higher protein and no prussic acid concerns. Safe for pasturing horses. Elite II has better high pH tolerance and a lower N requirement than sorghum-sudans. Leave stubble 6 to 8 inches tall for maximum regrowth. Approximately 75,000 seeds per pound.

**Planting Date:** June 1 to Aug. 1

KIND	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**
ELITE II	15-20	NO	H,G	45/80

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G

\*\*Approximate



## ***Teff***

A fine-stemmed, warm season annual grass that produces multiple crops of high-quality forage. Can be used for hay, pasture and also seeded into thinning alfalfa stands. Very fine leaves make excellent horse hay. It is usually ready to harvest approximately 50 days after planting and regrows quickly with adequate moisture. It is very drought tolerant once established, but very small seed size and shallow planting depth make adequate moisture at planting a must. Approximately 1,200,000 seeds per pound uncoated; 600,000 seeds per pound coated.

**Planting Date:** May 15 to June 30

KIND	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**
BONUS	5-10	NO	H,G	50/60
HORSE CANDY	5-10	NO	H,G	50/60

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G

## ***Bonus and Horse Candy Teff***

Both varieties are top yielding, easily outperforming Tiffany, Dessie and Corvalis Teff. These Teff varieties will have very high-quality, fine leaves. Harvest regrowth in 35 to 45 days in the preboot to early boot stage at a cutting height of 3 to 4 inches.





# Piper Sudangrass

This variety has long, fine leaves, and is very safe to summer pasture with a low prussic acid risk. Piper Sudangrass regrows very well and can be hayed or grazed when plants reach 24 to 30 inches tall. Multiple cuttings are preferred to maintain quality of hay. Approximately 55,000 seeds per pound.

**Planting Date:** May 20 to Aug. 1

KIND	Seeding Rate	Male Sterile	Best Use	Days Bloom/ Maturity**
PIPER	15-30	NO	G,H	50/85

USE: Hay=H, Freeze-Down Feed=F, Silage=S, Grazing=G  
\*\*Approximate

## Keys To Feeding Summer Annual Forages Safely

### NITRATE AND PRUSSIC ACID MANAGEMENT

**NITRATES** – Nitrates are primarily a potential problem when feeding dry hay, and occasionally a problem when grazing, but rarely when feeding silage.



#### **Best management practices:**

- **Avoid harvest during periods of slow growth** caused by drought, low temperatures, hail damage or prolonged cloudy weather. Nitrates accumulate when the plant is growing slowly or is under stress. Have laboratory analysis for nitrates performed if in doubt.
- **Delay harvest at least 10 days** after a drought-breaking rain.
- **Raise cutter bar height** to reduce nitrate concentration. Nitrate levels are highest in the lower stem of the plant.

**PRUSSIC ACID**—All sorghum hybrids and sorghum-sudan hybrids can produce a compound called prussic acid that is potentially poisonous. Prussic acid, which releases cyanide as it degrades, is nothing to fear, though, as long as you use a few precautions to avoid problems. Since it evaporates during drying or handling it is rarely a concern when feeding dry hay or silage.

#### **Best management practices:**

- The highest concentration of prussic acid is in new shoots, so **let your grass get a little growth on it** before grazing to help dilute out the prussic acid.
- **Let sudangrass reach at least 18 inches in height before grazing.** Since sorghum-sudan hybrids usually have a slightly higher prussic acid risk, wait until they are 20 to 24 inches tall.
- **Pearl millet does not contain prussic acid**, so if you planted millet, these grazing precautions aren't needed. Let your animals graze pearl millet when it reaches 12 to 15 inches tall.
- **Prussic acid levels are generally at low levels in standing dry sorghum** and can be safely grazed if there is no new growth at the base of the plant.

**For more information on all  
our forage seed, including  
assistance selecting a forage  
variety appropriate for your  
specific situation, visit  
[www.ArrowSeed.com](http://www.ArrowSeed.com) or contact  
your local Arrow Seed dealer.**



**PO Box 722  
Broken Bow, NE 68822  
1-800-622-4727**

***[info@ArrowSeed.com](mailto:info@ArrowSeed.com)***

***[www.ArrowSeed.com](http://www.ArrowSeed.com)***