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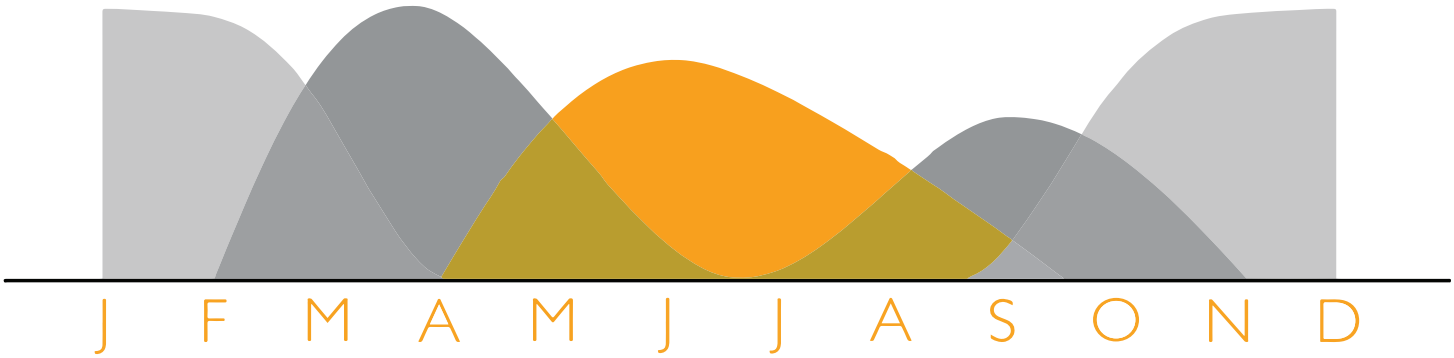
Southeast AgriSeeds LLC

Helping you optimize productivity on every acre!

SUMMER ANNUAL MANUAL

WHY SUMMER ANNUALS?

- Crop rotation
- Rapid growth during the hot, humid weather
- Fills the "summer slump" of cool-season perennials
- Higher quality than warm season perennials during the summer
- Conditions land for perennial establishment
- Provides a break for cattle grazing KY-31 fescue
- Rotation allows for rest and protection of perennial grasses



WHAT TO EXPECT

When managed properly, summer annuals can produce substantial, high quality forage in the span of 75-120 days.This is often harvested in 1-4 substantial harvests of high energy forage.Time to first harvest for multicut annuals is generally 45-60 days, depending on weather conditions.As long as enough residual is left behind, subsequent growth will be ready to harvest more quickly, with that window tightening to 30-45 days. This rapid growth will require aggressive harvesting to prevent the stand from getting rank or low quality. For ideal growth and nutrient density, nitrogen fertilizer can be added after emergence and, if needed, between each harvest.

WARM SEASON ANNUAL GRASSES

Single harvest: Forage sorghum

Multiple harvests: Sudangrass, sorghum-sudan, improved millet, teff grass, improved crabgrass

WARM SEASON LEGUMES

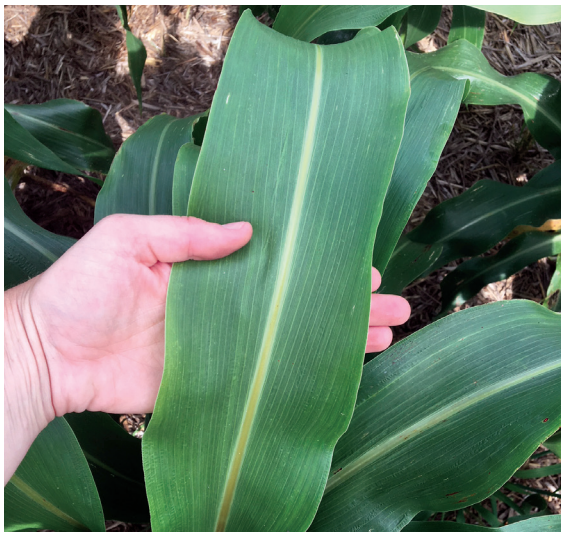
Single harvest: Cowpeas, forage soybean

Multiple harvests: Lespedeza, sunnhemp

BROADLEAVES AND BEYOND

Single harvest: Buckwheat, sunflowers

Multiple harvests: Brassicas, multi-species mixes



WHAT TO KNOW

PLANTING

Prior to planting, terminate the existing forage stand. Although some pastures may seem thin or non-competitive, they often provide too much competition for summer annuals to thrive. Take the time to terminate existing grasses prior to seeding to set yourself up for success. Always make seeding adjustments with the weather. Temperature and moisture considerations are key for summer annual success. Most summer annuals need 65 degree soil temperatures in order to germinate. Planting into moisture is highly encouraged, especially when working with smaller seeds like millet or crabgrass that require shallow seeding depth. Correct seeding depth for seed size can make or break the crop.

Red: Fescue stand terminated with glyphosate prior to planting, sorghum sudan fertilized with 60 units of N after emergence

Yellow: Fescue stand mowed very short prior to planting, sorghum sudan fertilized with 60 units of N after emergence

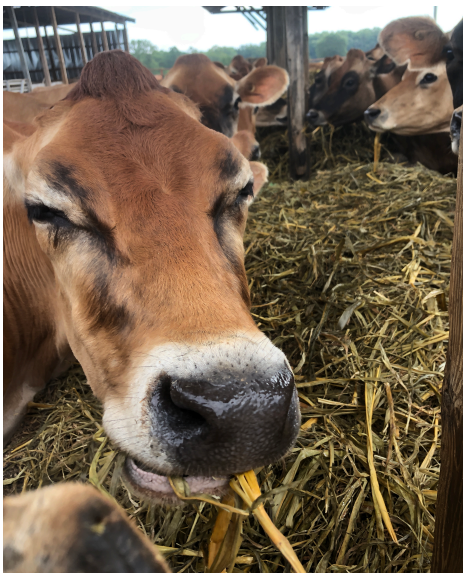
Blue: Fescue stand mowed very short prior to planting, sorghum sudan not fertilized

FERTILIZATION

- Refer to the most recent soil test for phosphorous, potassium, and micronutrient recommendations
- Apply nitrogen after emergence for best success: a general rule of thumb is one unit of nitrogen per growing day
- Application rates of 40-60lbs/A of nitrogen between harvests will maximize quality and yield

HARVEST TIMING

Depending on species and use (cover crop or forage for various classes of livestock), most should be taken fairly early in their growth, prior to or at boot stage. This will maximize quality and prevent stands from getting "rank", or low quality.



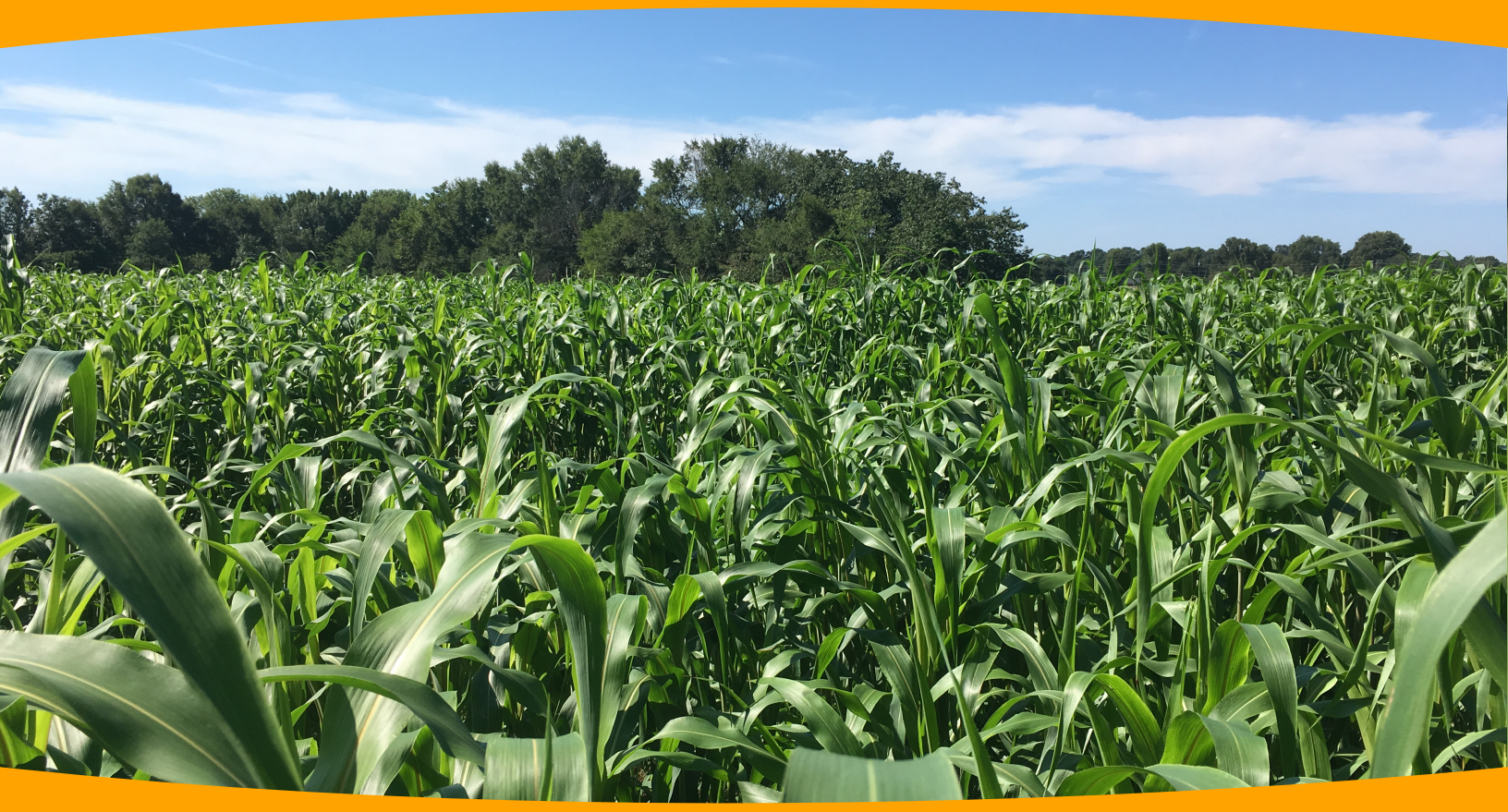
GRAZING

Rotational or strip grazing is the most cost effective way to manage summer annual forage. Sudangrass and millet have the best regrowth, but sorghum-sudan and even forage sorghums can be grazed. Crabgrass is also an excellent summer pasture crop that readily reseeds itself and volunteers the following year. Diverse mixtures like Ray's Crazy Mix or Summer Feast are 'dual purpose' in that they provide grazing while increasing soil health.

CONCERNS

Prussic acid is a concern with sorghum and sudangrass products, but not millets. Never harvest and feed immediately after a frost or big rain event following a droughty period. 18 inches of growth is the preferred minimum height for grazing. If you harvest for ensilage immediately after a frost, allow 30 days for a full fermentation process and for the prussic acid to "gas off" before feeding. Nitrate poisoning can also occur with all summer annuals. Typically, this occurs from excessive nitrogen fertilization or untimely nitrogen fertilization. Consumption of heavy nitrate concentrations can cause death within 24 hours in extreme cases, so forages should be tested for nitrates prior to being fed.

DEFINING CHARACTERISTICS



As you browse through this manual, you'll come across some key terms that will help you determine what species and varieties will work best for you. Take a moment to familiarize yourself with these defining characteristics.

BMR (Brown Mid Rib) is a gene mutation, named by its showy brown mid rib, which reduces lignin content and improves whole plant fiber digestibility. This means pound for pound more available energy to your livestock. Available in sudangrass, sorghum sudan, forage sorghum, and millet products.

Brachytic dwarf plants are defined by the shorter distance between internodes of the plant. Resulting plants stay shorter than their non-dwarf counterparts, but do not show lower yields. This improved leaf to stem ratio translates to less fiber overall. This characteristic also improves the standability and regrowth. Seen in sorghum sudan, sudangrass, forage sorghum, and millet hybrids.

Aphid tolerance is a characteristic that has been identified as a result of the sugarcane aphid. While this is not true resistance, hybrids identified as either AphidAxe or Aphix have been tested and proven to be not preferred by the aphid. Available in sorghum sudan and forage sorghum products.

Aphid Axe™ aphix SCA Tolerance

Photoperiod sensitivity is defined as hybrids that flower in response to day length. This means that the plant won't produce a seedhead until the days start getting shorter. This results in longer stretches of vegetative growth so you can capture quality forage for longer periods of time. Available in sorghum sudan hyrids.

Dry stalk means that the plants have the unique ability to allow moisture to wick away from the plant. This speeds up the drying time so that you can maintain higher quality. Available in 9301 sudangrass and KingFisher Sugar Pro 55.

HIGH YIELD *for grazing and hay*

IMPROVED FORAGE MILLETS DRY HAY - WET HAY - GRAZING

When placing millets on the farm, remember that most are extremely useful in their range of adaptability – we would argue that range is even broader than sorghums or sorghum-sudans. Despite their tolerance of the hot, dry conditions of peak summer, millets can do well in wetter, more acidic soils than their sorghum counterparts can tolerate. One major advantage of millets is that they currently have no susceptibility to sugarcane aphid. They also don't produce any prussic acid and are safe for horses. Millets are very small seeded, so they should be established by drilling no deeper than 0.5 inch or by broadcasting into a firm, prepared seed bed.

BMR Hybrids

PRIME 360
BMR Hybrid Pearl Millet

Prime 180- A wide leaf, dwarf BMR variety with a strong disease package. Heavy tillering and strong regrowth.

Prime 360- A second dwarf BMR millet with very similar characteristics to Prime 180. Tends to grow taller late season, recommended for haylage and baleage. *Available in coated!*

Non BMR Hybrids

Leafy T - A dwarf pearl millet with fair rust resistance.

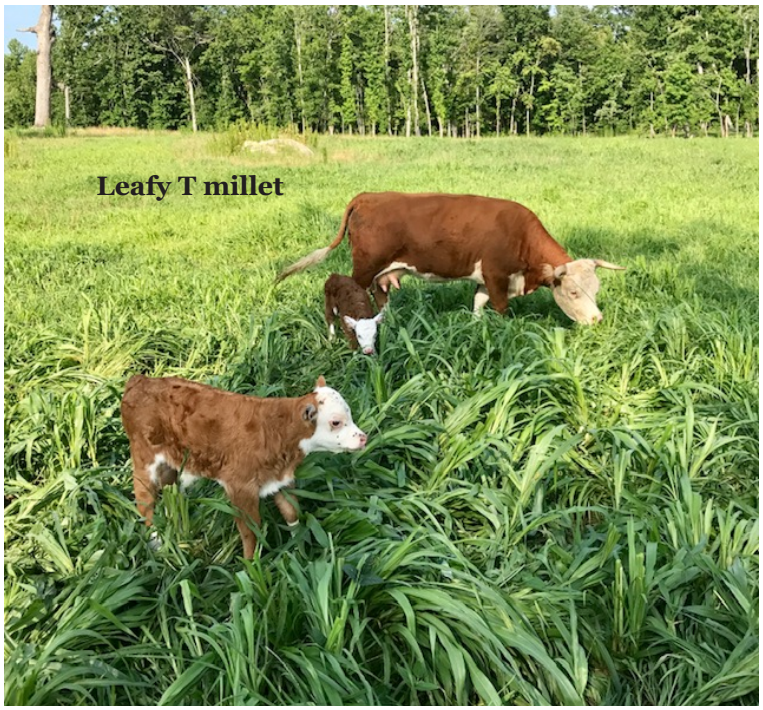
SUDANGRASS DRY HAY - WET HAY - GRAZING

Sudangrass handles drought very well, but has finer stalks and a more favorable leaf to stem ratio than sorghum sudan. It is arguably the most flexible summer annual crop, is quick to establish and has the best regrowth in the lineup. Drill at 0.5-0.75" deep when soil temperatures reach 65 degrees. Harvest between 2-5ft tall for ideal quality, yield, and regrowth.

BMR hybrids

AS 9301 - A powerful product with strong disease resistance and drought tolerance that maintains dry stalk characteristics instead of a thin stem

AS 9302 - The same strength of 9301, but with a dwarfing characteristic that makes this hybrid more forgiving of lower harvest heights.


Leafy T millet


AS 9301 sudangrass

UNIQUE FORAGES *for unique situations*

CRABGRASS DRY HAY - WET HAY - GRAZING

Crabgrass is a reseeding annual that grows more like the perennial grasses, with a maximum height of 3ft tall and only 3" residual height needed to regrow. It is the only summer annual that consistently establishes and is productive when interseeded into thinning perennial stands. As one of the smallest seeds in the lineup, it can be broadcasted or drilled. No matter the method of seed distribution, it should be kept shallow and never be placed deeper than 0.25 inch. The crabgrass we work with has been coated at 50% to increase the size of the seed and aid in seed dispersal. This coating is equipped with absorptive materials that draw water to the seed for fast germination and contains a fungicide to aid in early season fungicide prevention. Broadcasted seed should be firmed into the seed bed in some manner- whether that be by cultipacking, irrigation, running the livestock densely across the field, or dragging. If allowed to go to seed during the growing season, crabgrass will reseed itself. Count on emergence the following spring when soil temperatures break 55 degrees. Crabgrass is one of the lowest yielding summer annuals, with no more than 2.5 tons across the growing season. Its flexibility and reseeding capacity has made crabgrass an important forage across the Southeast.

Mojo - Coated with Yellow Jacket seed coating to improve seedling vigor, Mojo brand is a blend of Red River and Impact varieties.

Red River - Red River crabgrass has excellent reseeding and regrowth capacity. Known for its ability to spread and cover ground.

TEFF DRY HAY - GRAZING

Teff is a very small seeded summer annual that has large interest amongst the equine community. Known for its low non-structural carbohydrate content, this is a fine leaf and stem grass that is native to Africa. Must be seeded into a prepared seed bed, broadcasted, and then firmed into the seed bed for perfect establishment. The first harvest should be taken for dry hay due to the young root system and high potential for pulling up the plants completely under grazing pressure. Once established, teff requires very little. It is drought tolerant and needs only 30lbs/A of nitrogen to produce a good crop. Needs to be harvested prior to boot stage for ideal quality and palatability.

Moxie Teff - A high yielding teff blend that has been coated with Yellow Jacket for improved germination and seedling vigor.

GRAZING CORN GRAZING

A very palatable, single grazing option. Livestock will seek out corn over many other summer annual options. High sugar content makes this a great option for those seeking milk production or trying to add weight to livestock. Does require more water to be productive compared to sorghum sudan and sudangrass. No prussic acid risk.

BMR 84- An open pollinated corn designed for grazing.
Low in fiber. Optimum grazing time is at tassel.
Stockpiles fairly well.


Moxie teff


Red river crabgrass

GROW *silage and haylage*

FORAGE SORGHUM WET HAY - SINGLE GRAZING

Forage sorghum is an excellent choice for one cut systems on marginal corn ground or after double crops. It uses 30 to 50% less water than corn and less nitrogen for similar tonnage. Ideal harvest time for direct chop silage is at soft dough stage, which will maximize starch content and yield. Forage sorghum is also well suited for haylage and baleage production using a "cut and wilt" system at boot stage. It is recommended to increase seeding rate to improve yield. For both systems, it is always recommended to use varieties with the BMR trait to improve energy concentration of the feed. Forage sorghum can be sown 1-2" deep and seeding rate is variety dependent.

Direct chop

AF 7401- a full season BMR gene 6 vareity with 110-115 days until soft dough stage.
AF 8301- A non-BMR dwarf variety with high yields. A good choice for dry cow and heifer feed.

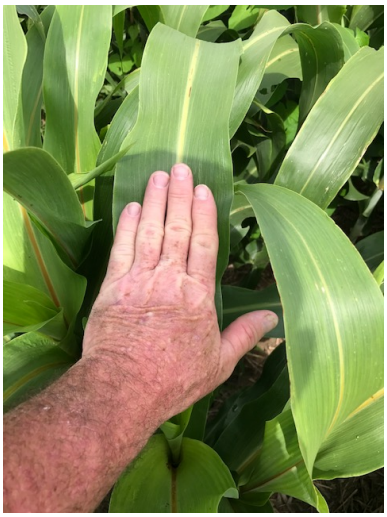
Cut & Wilt

KingFisher Fiber Pro 50- An 85-89 day brachytic dwarf BMR gene 6 variety that keeps lodging potential low. Another great option for quick haylage production or planting after corn for a double crop.
AF 7101- An 82-85 day dry stalk BMR gene 6 variety ideal for lower productivity soils. A great choice for mid summer plantings to produce haylage or silage.
AF 7201- Dry stalk BMR gene 6 variety with 90-95 days until soft dough. Performs well on dryland.

SORGHUM SUDAN WET HAY - GRAZING

Sorghum sudan is a hybrid between forage sorghum and sudangrass and carries the same drought tolerance and high yield. Sorghum sudan is one of the tallest summer annuals and tends to have a stalk size more similar to forage sorghum. The large stalk size, especially at tall harvest heights, can make dry down difficult and result in poor quality dry hay. Sorghum sudan has an incredibly aggressive seedling vigor and strong regrowth. Drilling is recommended at 0.5-1 inch deep. Harvest for haylage or silage at waist height, begin grazing around 24" tall. Leave behind at least 6" of stubble height to encourage regrowth.

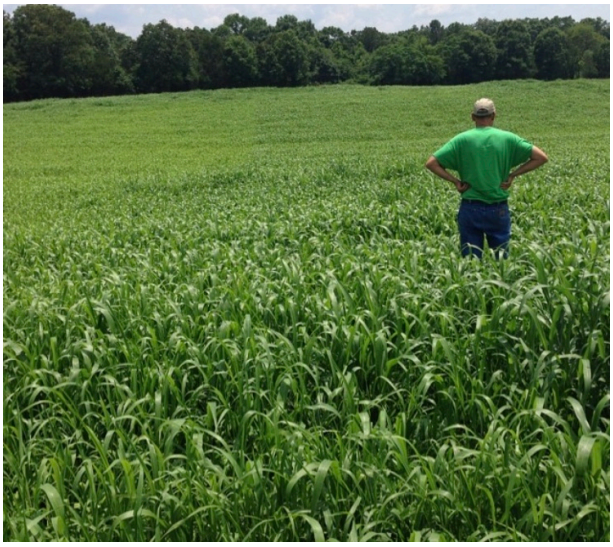
AS 6401- This BMR variety has the strongest disease tolerance in the lineup.
AS 6504- This unique hybrid is both a BMR and photoperiod sensitive.
AS 6402- A dwarf BMF variety that is more tolerant of low harvest heights.
KingFisher Sugar Pro 55- Dry stalk , BMR hybrid to ease haylage production.
Heavyweight with AphidAxe- Aphid tolerant BMR variety with great agronomic characteristics.
SS 275 with AphidAxe- Aphid tolerant non-BMR variety.
ADV S5501- A photoperiod sensitive hybrid that is non-BMR.



AF 7401 forage sorghum

SS 275 sorghum sudan

Aphid Axe™



AS 6401 sorghum sudan

BUILD SOIL *with diverse mixtures*

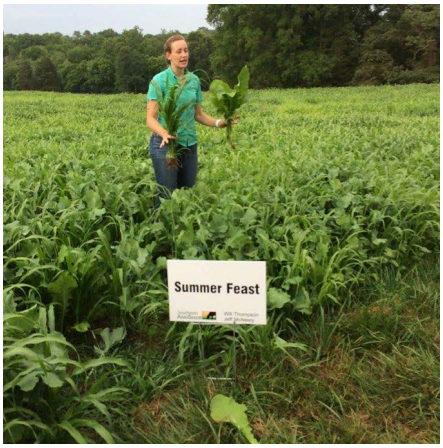
DIVERSE MIXTURES GRAZING - WET HAY

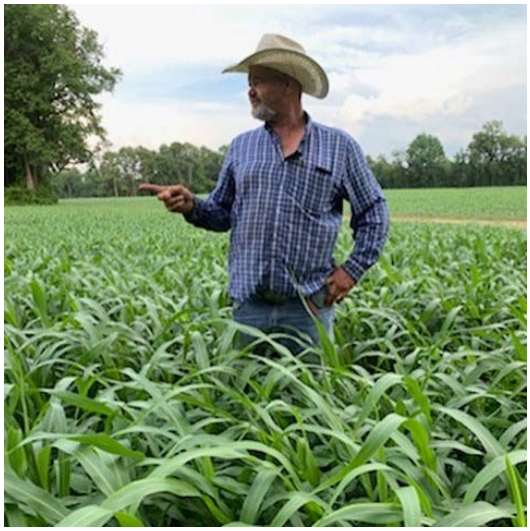
Ray's Crazy Summer Mix
A seven species mixture developed to build soil health, increase available nitrogen while producing a high protein forage for livestock. Ideal behind cleared land or for use in pasture renovation.

Summer Feast
A balanced two-way mixture of hybrid brassica and pearl millet for high-quality forage. The hybrid brassica mines for nutrients deep in the soil and provides quality, while the millet acts as effective fiber. An excellent mixture for developing heifers, grazing stocker calves, and putting weight on cows.

Summer Breeze
BMR sorghum sudan and cowpea work together to provide high yielding and higher protein forage. A great choice for the producer looking to increase diversity, minimize nitrogen fertilization, and get livestock off of Kentucky 31 during the hot summer months.

Summer Solar
A diverse legume-forb cover crop mix of aggressively growing summer annuals, with possible dual use for wildlife food plots. The mix includes four very different components—buckwheat, cowpeas, sunflower, and sunn hemp. Seeding rate is 35-60lbs/A and should be drilled between 0.5-0.75" deep.





Top left:
Summer solar

Top right:
Summer Breeze

Bottom left:
Summer Feast

Bottom right:
Custom mix of millet, sorghum sudan, sunn hemp, and TRaptor brassica

Looking for something different? Custom mixes available.

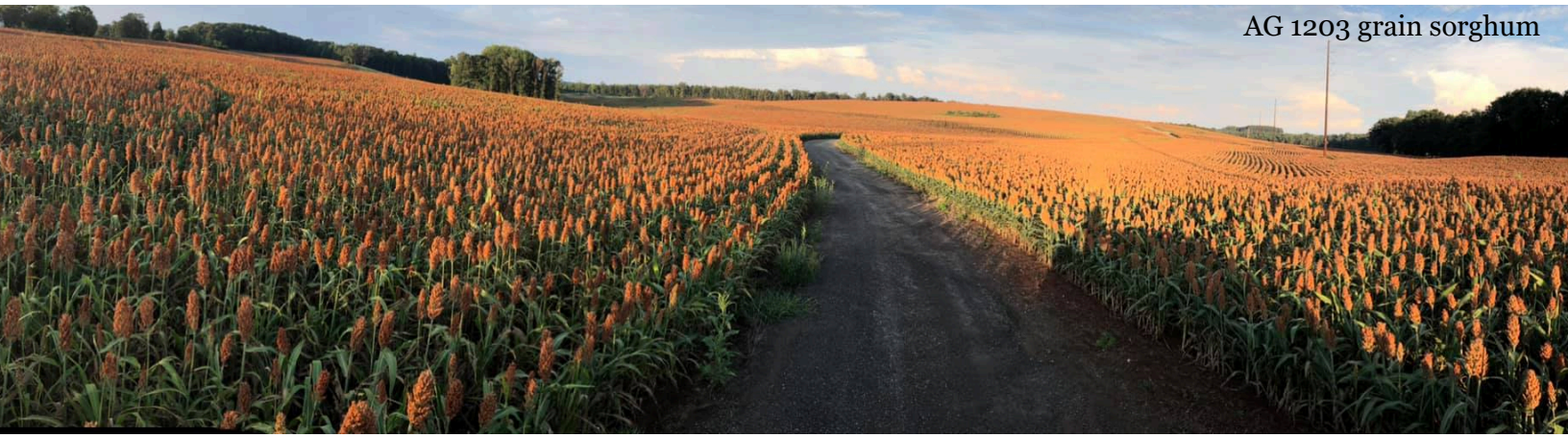
Southeast AgriSeeds works with you to formulate the perfect mixture for your needs. Only 500lbs needed for a quick, accurate custom mix named after you, designed by you.

CREATE NITROGEN *with legumes*

LEGUMES WET HAY - GRAZING - SOIL BUILDING

Legumes are unique plants that have a symbiotic relationship with bacteria that allows them to create their own nitrogen. Once grazed or terminated, this excess nitrogen will be released and is available to other plants. Can be mixed with other grasses or grown as a standalone crop. These legumes cannot produce nitrogen without their species-specific bacteria- make sure you coat seeds in the inoculant for that species.

Iron & Clay cowpeas- A very drought tolerant, palatable plant. Grows best with a tall grass that it can vine up. Limited regrowth after grazing or harvesting. Seed 12-15lbs/A within a mix or 25-35lbs/A alone.
Korean lespedeza- Slow and steady summer growth. Expect 1-2 cuts in late summer. Reseeds itself if allowed to do so. Doesn't compete well with very tall forages. Seed 12-15lbs/A in a mix or 25-30lbs/A alone.
Legend lespedeza- A more productive variety than Korean lespedeza, more disease resistance, but limited reseeding capacity. Seed 12-15lbs/A in a mix or 25-30lbs/A alone.
Sunn hemp- The fastest growing summer annual legume. Grows upright on a single stem, can become large and stemmy if not harvested frequently enough. Regrows fairly well after grazing or harvest. Seed 10-12lbs/A in a mix or 20-25lbs/A alone. Harvest before seeds are produced.
Partridge pea- Ideal for a cover crop or for attracting and feeding wildlife. Seed at 15lbs/A.
Derry forage soybean- A good option as a stand alone legume crop. Not ideal for mixing with tall grasses as it gets easily outcompeted. Seed 140K kernels per acre, equivalent to one bag.


AG 1203 grain sorghum

GRAIN SORGHUM GRAIN PRODUCTION

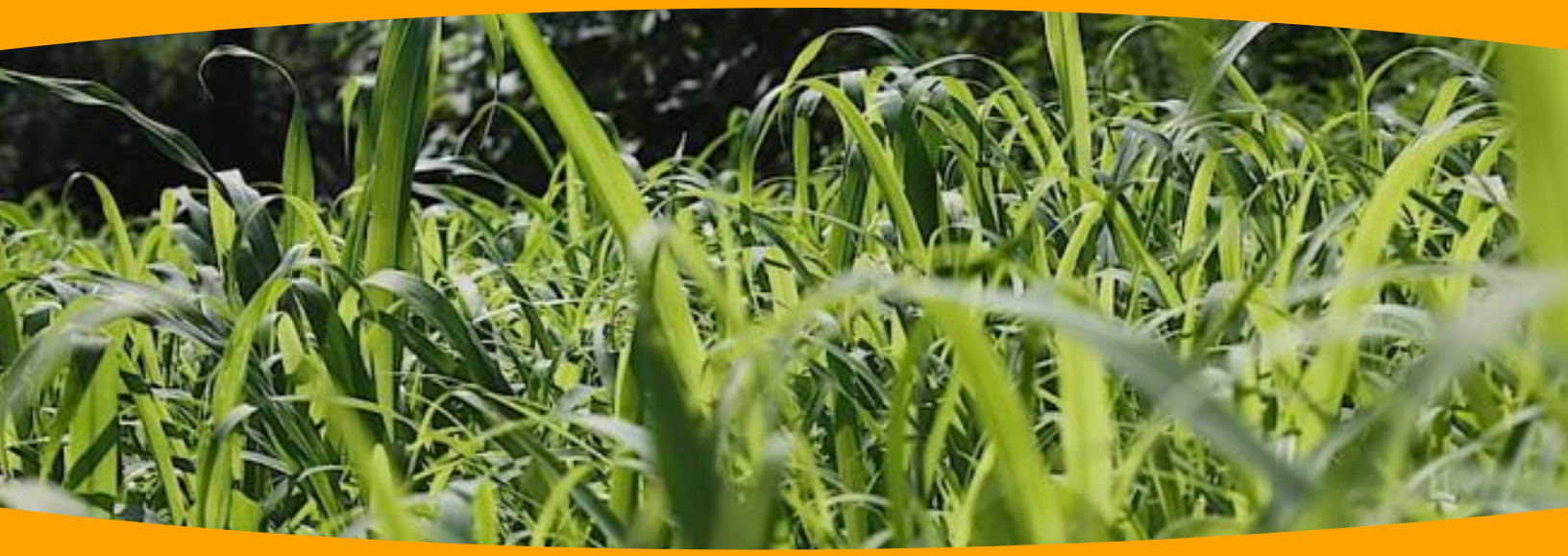
Grain sorghum is an excellent alternative to corn production. Lower nitrogen requirements and tolerance to drought are two of the primary characteristics that is drawing producers to this lower cost option. Aphix tolerance will help reduce the chance of sugarcane aphid damage.

AG 1203- A stout, bronze grain hybrid that has a wide range of adaptation. Great dryland options. 63 days to mid bloom with Aphix.
AG 1301- A cream, 63 day hybrid with good standability and Aphix aphid tolerance. Good dryland option that also responds well to irrigation.
AG 1401- White grain suitable for food-grade production. Good yield under stress, 61 days to mid bloom.
ADV G3189- Red grain with exceptional yield and test weight. Strong drought tolerance and Aphix characteristics, 67 days to mid bloom.

Want to see more products?

Visit us online at **www.SoutheastAgriSeeds.com** *to learn more, see more products, view pricing, and even start your order.*

Attract and feed **WILDLIFE** *all summer long*



MIXTURES

It just makes sense- give wildlife the buffet they are looking for. Hedge your bets against nature and have a better chance at attracting and feeding deer, pheasants, and other wildlife.

Habitat- A mixture of sunn hemp, browntop millet, and bayou kale. A smaller seeded mix intended to be broadcasted or drilled shallow. Seed 25lbs/A.

Opening Day- A legume heavy mix of forage soybeans, cowpeas, sunflower, buckwheat, and sorghum sudan. This mix contains larger seedss- it's best to be drilled OR broadcasted and incorporated in. Seed 50lbs/A.

WARM SEASON PERENNIALS

Chufa- this perennial sedge is slower to establish, but will feed turkeys for years after establishment. Seed 25-35lbs/A.

WARM SEASON ANNUALS

Egyptian wheat- A quick to establish grass, very heat and drought tolerant. A member of the sorghum family. Seed 15 to 25lbs/A. Will grow to an average of 8-12ft tall.

Wildlife grain sorghum- Quick to bloom and a prolific seed producer. Will attract deer and game birds in late season. Seed 100-120K seeds per acre.

Follow WARM SEASON forages with a COOL SEASON forage.

Mixtures like **LURE** and **ENTICE** or perennials like **MATUA BROMEGRASS** and **KINGFISHER ALFALFA.**

WARM SEASON *product list*

Crabgrass
Mojo
Red River

Sudangrass
AS9301
AS9302

Mixtures
Ray's Crazy Summer mix
Summer Feast
Summer Breeze
Summer Solar

Millet
Prime 180 BMR
Prime 360 BMR
Leafy T millet
Wonderleaf
Browntop
Japanese
Proso

Forage sorghum
AF 7401
AF 7101
AF 7201
KingFisher Fiber Pro 50
AF 8301 non-BMR

Corn
BMR 84 Grazing corn
KingFisher and RedTail floury grain
Master's Choice
Sun Prairie

Sorghum sudan
AS 6402
AS 6504
Heavyweight Aphid-Axe
SE SS 275 Aphid-Axe non-BMR
KingFisher Sugar Pro

Legumes
Sunn Hemp
Iron and Clay cowpeas
Korean lespedeza
Legend lespedeza
Patridge pea
Derry forage soybean

Grain sorghum
AG 1301
AG 1203
AG 1401
AG 3189

PERENNIALS
Gaucho bermudagrass
TifQuik bahiagrass
Pensacola bahiagrass
AU Grazer serecia lespedeza

Learn more about these perennials in our *"Renovation and Rejuvenation Guide"*

Southeast AgriSeeds LLC

Helping you optimize productivity on every acre!

Joshua Baker
General Manager

Paige Smart
Regional Specialist

LaDon Bandy
Business Manager

Hunter Gordon
Warehouse Lead

MISSION

To serve southeast agriculture producers by equipping local dealers with the products, services and support needed to optimize productivity per acre.

TESTIMONIALS

"I turned heifers out into a pasture with sections of Tifleaf III and Prime 180. They finished the BMR millet before they moved to Tifleaf."
Larry Hadden, Stapleton GA

"I did a test plot last season with Mojo. Yielded nearly 80 small squares (45-50lb) per acre. Made beautiful hay, my horse owner clients loved it. Will be planting 25 acres this season."
David Collins, Stoneville NC

Questions? Let us help

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