

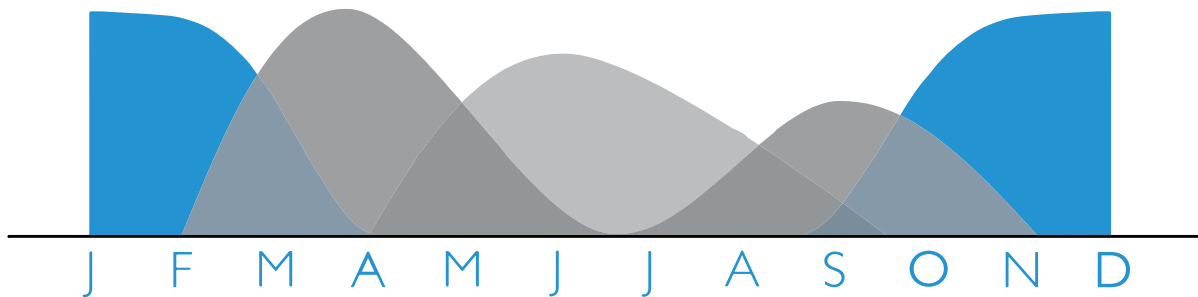
# WINTER ANNUAL MANUAL



Helping you optimize productivity on every acre!

# WHY WINTER ANNUALS?

- Fast to emerge and establish
- Supreme quality
- Easily stage growth for when you need forage the most
- Pasture renovation tool
- Rotation allows for cool-season perennial rest
- Overseed dormant warm season perennials
- Provides a crop rotation



## WHAT TO EXPECT

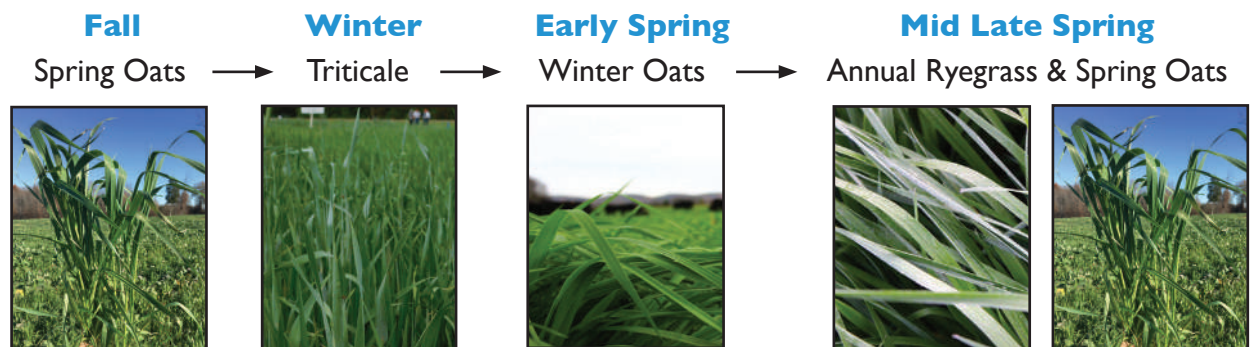
Winter annuals are critical for filling in forage gaps in the late fall through late spring. Each species of grass grows and matures at a different rate, making it easy to select a species based off when forage is needed. Furthermore, these grasses can be planted together for the widest production window. This is referred to as “staging” forage production.

### GRASSES

**Fall Production:** Spring oats (fall planted)

**Winter Production:** Cereal rye, triticale, barley

**Early Spring Growth:** Winter oats, ryegrass, spring oats (late winter planted)



### LEGUMES

**Fall Planted:** crimson clover, winter peas, vetch, spring peas

**Late Winter Planted:** spring peas

### BRASSICAS

**Fall Production:** Turnip, radish, kale, brassica hybrids (fall planted), rape

**Spring Production:** Turnip, radish, brassica hybrids (late winter planted), rape

# WHAT TO KNOW

## **Planting**

Removing competition will generally improve stand uniformity and production. The cereal grains and larger legume seeds require deep plantings and should be drilled to ensure good seed to soil contact. Annual ryegrass, crimson clover, vetch, and brassicas do well when broadcasted, but efforts should still be taken to ensure good seed to soil contact. Competition will limit stand success.

## **Overseeding warm season perennials:**

Bermudagrass and native warm season grasses, such as switchgrass and indiangrass, go completely dormant in the winter. This allows for winter annuals to be sown and thrive across this acreage, turning warm season acreage into cool season forage production. Not only does this increase the yield per acre, but it also prevents weeds from invading. Opportunistic weeds will often germinate and thrive into these dormant stands, which is not contributing to yield and results in the added expense of an herbicide burndown. When selecting winter annuals to utilize, keep in mind the longevity of each annual. Annual ryegrass, winter planted-spring oats, and even the winter oat will often have growth that overlaps warm season perennial production. For this reason, it is wise to overseed at least half of the acreage with an early maturity species. Spring oats, triticale, and cereal rye often senesce early enough in the season to keep from competing with the warm season perennial as it greens up. This will prevent a forage production gap.

## **Managing for pasture renovation:**

When utilizing winter annuals as part of a pasture renovation process, it is important to manage species that may reseed. Annual ryegrass, crimson clover, and vetch are all prolific seed producers, which can lead to weed control issues in cool season perennial pastures long term. If the ultimate goal is to develop a cool-season perennial pasture, it is best to terminate these reseeding annuals at or prior to boot stage.

## **Fertilization:**

Refer to the most recent soil test for Phosphorous, Potassium, and micronutrient needs in the soil. Apply these prior to or shortly after planting for best success. Nitrogen is a very mobile nutrient in the soil, so most pastures and hay fields will need timely nitrogen application for best growth and forage quality. After the seeds have emerged and passed the cotyledon stage, nitrogen can be added. A typical range is 40-70lbs/A, but this will depend on your soil type, management, and ultimate goal for the winter annual. To maximize production, add nitrogen following each harvest

## **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. This will also maximize regrowth, as most small grains will not grow back vigorously if the seed heads are well developed at harvest.

## **Grazing:**

Rotational or strip grazing is the most cost effective way to manage winter annual forage. For maximum regrowth potential, leave behind 3-4” of residual forage.

# PRODUCT HIGHLIGHTS



## SPRING OATS

Oats are a useful addition to a rotation because they produce a high volume of biomass (2-6 tons of dry matter per acre under good conditions) in a short time (60-75 days), and grow best in cool, moist conditions. Forage oats are bred for leafiness and often grow longer in the vegetative state than typical grain oats. Leaves are wide, and the plant grows taller before heading. Spring oats can be planted in the fall for late fall forage. They will winter kill if temperatures drop into the teens for a few days in a row, so harvest ahead of these temperatures. Spring oats can also be planted in late winter for a late spring harvest.

**Everleaf** - A true spring oat with dark green foliage, an erect growth habit and very good standability. It is a delayed heading oat and much of its forage mass and quality come from an extended maturity. Best suited for multiple harvests.

**Niagara** - Niagara is a medium maturity Canadian forage oat, very similar to Foragemaker 50 with improved rust resistance. At boot stage, Niagara is high in crude protein and percent digestible fiber.

**Forage Maker 50** - This is a true forage variety that has wide leaves and produces high-quality forage. Although it is leafy, it's also a tall and erect plant, averaging more leaves per stem.

**Reeves** - A medium maturity, high yielding oat variety. Excellent for those who need forage fast and are looking for one big harvest.



## TRITICALE

This wheat and cereal rye cross brings together the best from both species. Leafy, heavy tillering, high yielding and cold tolerance put triticale at the top of the winter annual list. Its cold tolerance makes for a flexible planting window and keeps it productive during the early and late winter periods. Harvest at boot stage to maintain quality forage.

**TriCal 815** - a late maturity variety with excellent disease resistance and a great leaf to stem ratio.

**Gainer 154** - a mid-maturity variety with incredible cold tolerance and yield.



# PRODUCT HIGHLIGHTS

## WINTER OATS

Winter oats have better cold tolerance than spring oats, and are often more productive in the spring than they are in the fall. These have impressively wide leaves and a large crown, resulting in strong weed suppression into the spring.

**Cosaque** - A high biomass, heavy tillering true winter oat. Matures later in the spring than other oat varieties. Blends well with other winter annuals, such as crimson clover, hairy vetch, or annual ryegrass.

## ANNUAL RYEGRASS

Often described as the King of Cool Season Annuals, this forage is easy to establish and provides heavy yields in mid to late spring. If allowed to drop seed, annual ryegrass will volunteer in years to follow.

### Diploid

The more cold tolerant of the annual ryegrass family that shows heavier tillering ability.

**MOI** - similar heading and productivity to Marshall ryegrass. Excellent productivity and tillering capacity, a strong fit for the south.

**McKinley** - a newer variety with a strong genetic background. Has topped the charts for yield production across University trials.

**Tetraploid** - Wider leaves that are typically more digestible and provide more energy than diploid types.

**Credence** - A medium maturity variety with excellent rust resistance.

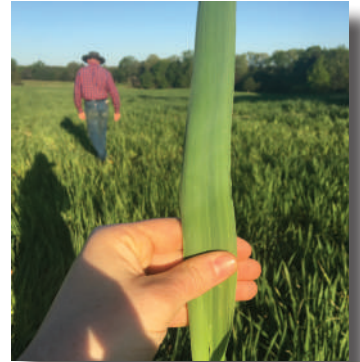
**Striker** - Striker is an improved medium-late maturity selected from several proven commercial varieties with a focus on high forage yield balanced with high seed yield. In addition, it has excellent crown rust resistance.

**Jumbo** - This variety has shown strong cold tolerance and a showy, wide leaf.

## ITALIAN RYEGRASS

A unique opportunity for producers who desire a longer production window with greater quality. Italian ryegrass is a biennial plant, but does not act as a true biennial in our climate. This results in an annual ryegrass that is much later heading than the traditional annual ryegrass. A great fit for dry hay production or longer season grazing.

**Meroa** - A late-maturing, high-yielding, true tetraploid Italian ryegrass with excellent forage quality. Good winter hardiness, ideal for dairy, beef, and other high-performance forage applications. Stays vegetative longer into the summer than annual ryegrass, which means capturing quality for longer.



# PRODUCT HIGHLIGHTS

## BRASSICAS

These low fiber, high protein brassicas offer a bump in forage quality. Their quick growth and extensive root system makes them a critical part of bridging the forage gap.

**T-Raptor** - A hybrid cross between kale and rapeseed, this bulbless brassica is designed with multiple grazing in mind.

**Barkant Turnip** - A vigorous turnip from Holland. It is extremely high yielding and bred specifically for increased leaf growth. This turnip offers the best of both worlds: regrowth after grazing/harvest and a tuber for building the soil and addressing compaction.

**Winfred** - The most cold tolerant brassica in the lineup. Slower to mature, but has the longest potential growing season and the best regrowth.

**CCS 779** - A cover crop radish variety with deep root growth. CCS 779 Cover Crop Radish can be quite beneficial to row-crop farmers and livestock producers alike. The plants are able to capture excess nutrients left over from crops. As they grow over the fall months, they grow deep tap roots while covering the soil surface with their leafy top growth, which can be grazed once. The roots break up compaction and the surface coverage reduces weeds and erosion.



## LEGUMES

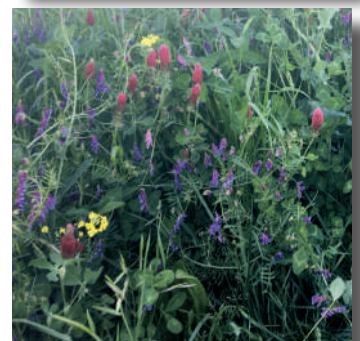
Legumes not only increase the protein and diversity of a mix, but they also leave behind important nutrients for future crops. Bacteria nodulate the roots of these species, and in return, turn atmospheric nitrogen into a plant useable form. Once grazed, harvested, or terminated, that nitrogen becomes available for the surrounding plants.

**AU Merit Vetch** - A high biomass, early maturing vetch. This vining plant seems to explode with growth in mid spring. Pairs very well with winter oats and annual ryegrass.

**Keystone Winter Peas** - An incredibly cold tolerant, white flowering variety. The white flowering indicates low tannins, which increases palatability. A complement to triticale, winter oats, and annual ryegrass.

**40-10 Spring Peas** - A quick to establish pea that is pairs best with a spring oat.

**Dixie Crimson Clover** - A reseeding variety that produces large leaves and an incredible amount of nitrogen early in the spring. Pairs well with cereal rye, triticale, and spring oats.



# PRODUCT HIGHLIGHTS

## MIXTURES

Blends designed to have complementary growth for balanced forage production.

### Non-leguminous

**Double Play** - One of our most sought-after mixtures. This blend of spring oats, triticale, and ryegrass optimizes forage production from fall to late spring. With each harvest or grazing, the composition of this mix will change to reflect the grass best suited for the current weather pattern. Spring oats come out strong in mid to late fall, which then make way for triticale in the early and late winter, followed by long spring production of annual ryegrass.

**TriCal Plus** - A strong pair of triticale and annual ryegrass. Triticale provides early season growth, and later provides the effective fiber that ryegrass lacks.

**Oats Plus** - Spring oats give that flush of growth from fall until winterkill, which makes way for annual ryegrass to thicken up and provide heavy growth through spring.

### Legume containing

**Ray's Crazy Fall Mix** - Our most diverse winter annual! Spring oats, triticale, ryegrass, Austrian winter peas, vetch, crimson clover, and topped off with Barkant turnip and daikon radish. This crop provides heavy root biomass, nitrogen production, and quality feed.

**Soil Builder Plus** - A solid mix that is the cornerstone of diversity and yield. Triticale and annual ryegrass blend well with vetch, crimson clover, and daikon radish. Functions well as a grazing mixture and silage production.

**Southern Broadcaster** - Designed specifically to include species that broadcast well. Perfect for those with limited equipment or difficult terrain who want all the soil building aspects of a winter annual mixture. Annual ryegrass, crimson clover, daikon radish, and Barkant turnips provide balanced fiber, energy, and protein for livestock.



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*Southeast AgriSeeds is a sister company to King's AgriSeeds.*

### **MISSION**

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

### **TESTIMONIALS**

*"I was really impressed by the MOI. It filled in all the bare spots. The calves came out of the winter looking really good."*

- Randall Smith, Snow Camp NC

*"That Double Play is the cat's meow."*

- Jim Smith, Pittsboro NC