The AMPAC Impact

April 2008 *A Quarterly News Publication*

Searching for the Right Forage

By Jeff Medlin, Sales and Forage Agronomist

Spring has sprung here in the southeast! Rains are falling and the water tables at least heading back in the right direction after last years severe drought conditions. Hopefully we will continue to get timely rains and this year will provide some sort of "normal" growing season.

As I travel around the southeastern part of the country, many areas are still feeling the impact of last year's drought conditions. The last few years have proven to be extremely challenging for the forage producer. We are all looking for the perfect forage.

Ampac Seed Company takes great pride in providing improved forages that have been tested (University and Private Trials) through extreme conditions and in different parts of country before we recommend them to our distributor, dealer, and producer networks. Growing cool season products in a warm season environment (or vice versa) doesn't always make sense, but sometimes we find products that fill those "gaps" in growing seasons, or even those products that do perform well in different areas.

Some of the areas of focus are durability, palatability, drought tolerance, cold/heat tolerance, disease resistant, yield, and even seed production. We work to put things through extreme test conditions in order to have the confidence to recommend them for your forage systems. Some varieties might be a good hay yield product, but do not withstand heavy grazing pressures, while other products aren't very palatable to grazing animals, but have high yields for hay production. Finding the right forage products can definitely be challenging.

When evaluating data, make sure you understand the data you are looking at. University grazing trials will not necessarily show best yield (tonnage) forages as the most preferred by animals. An example would be when comparing Duo Festulolium or Tekapo Orchardgrass to Tall Fescue varieties in a horse grazing study. Duo and Tekapo will always be consumed first due to increase palatability.

University data is extremely important to the success of what actually will work in a given area. Universities have the flexibility to test and try products under different conditions without the risks of jeopardizing this year's grazing systems. On farm trials can't afford to take the same risks and need proceed carefully or at least in smaller steps to avoid risking the forage crop.

TABLE OF CONTENTS

Ampac Seed Company constantly evaluates forage varieties to seek the best opportunities for particular areas. Some of the traits for particular varieties that we've noted are that:

- Oasis Chicory is more persistent than Choice or Puna (after three consecutive years of evaluation).
- Kopu II White Clover produces more stolons and performs well through the transition zone under grazing pressure.
- Starfire II Red Clover has shown more persistence than common medium red varieties even through drought conditions.
- Attention Alfalfa (with Standfast Technology) performs best under 30 day cut systems.
- Tekapo Orchardgrass appears to be a preferred variety (palatability) and shows grazing tolerances due to lower plant crown.
- Profit Orchardgrass (new for Fall 2008) looks "big and healthy" in trials and appears to be a good seed producer (for production) and an excellent hay type Orchardgrass.
- Power Perennial Ryegrass (new for Fall 2008) looks good in hay trials and not as subject to winter damage when compared to other varieties.
- Duo Festulolium is preferred in grazing trials and persists well with adequate rainfall during establishment year.

- Bronson Tall Fescue has proven to be persistent in severe Georgia droughts (3+ years) and has shown animal preference when grazing endophyte and Novel endophyte infected varieties.
- Lakota Prairie Bromegrass has shown to be an earlier variety than Matua and prolific with proper fertilization.
- Promax BMR Sudangrass has a smaller stem than Sorghum-Sudan crosses, and the BMR trait has improved digestibility for animals. Plant tillers increased throughout the growing season.

Forage grass and legume performance vary depending on environmental conditions. No single forage variety is "best" in all environments. The selection process of grasses and legumes is influenced by factors such as: average rainfall, soil drainage, nutrient supply, intended uses, and pH to name a few. The adaptation of a species, or its potential longevity in the field, is determined greatly by genetic climate traits. When selecting a forage species, or several species for use in a pasture mixture, consider their appropriateness for the intended use (pasture, hay, etc.) and for the expected longevity on the site.

Once several possible candidates are selected, we consider how these species might be suited to the conditions of specific geographical areas. Soil drainage and their relative tolerance of low soil fertility or pH conditions often limit the persistence of legumes. Mixtures of legumes and grasses often give the best overall performance for a pasture and multi-use hay/pasture system. Yields tend to be greater with mixtures than with either a grass or legume single variety system. Mixtures of two or three well-chosen legumes or grasses are usually more desirable than mixtures that include five or six. Each selected variety should have a specific purpose.

Timely plantings, careful attention to good seeding techniques, and using high quality seed are the best management strategies for improving seedling survival rates. A good variety should be a top yielder, have a sufficient winter-hardiness for your particular location, and be resistant to the vast array of plant diseases prominent to your fields.

Answer: Many exciting things!

TALL FESCUE: Our new Tall Fescues are rating tops in the preliminary NTEPs with 3 of the 4 being on the front page! Watch for TF-152, TF-138, RKCL and ATF-1247 in our future line up of high quality turf type tall fescues. Make room Cochise III, Cortez II, Ninja 2 and Expedition, the new "kids" are knocking at the door.

KENTUCKY BLUEGRASS: In Kentucky Bluegrass we will have production of FrontPage, an Elite Compact Midnight type this Fall. Future plans include AKB-287, our "workhorse" variety that is proving to be a drought tolerant variety maintaining a 25% green cover 34 – 39 days after irrigation is withheld, challenging many of the named Texas Bluegrasses bred for drought tolerance. (75% after approx. 24 days/ 50% after approx. 31 days). Looking ahead A99-269, an America type, will join the blues as production (availability of acres) permits. Ampac's Kentucky bluegrass program continues to gain strength as we add more of our own varieties.

FINE FESCUE: Ampac's Fine Fescue varieties are showing real promise in the CTBT trials. FCR-26 Chewings Fescue, with its excellent shade, drought and cold tolerance, is rated #1 in the New Jersey trials. FL-39 Hard Fescue is rated #1 in Kentucky and is one of the top varieties for drought tolerance in other hard fescue studies. Our new fine fescues are keeping good company with the proven varieties of Gibraltar Creeping Red and Stonehenge Hard fescues.

BENTGRASS: Don't forget we have LS-44 Creeping Bentgrass. Preliminary data from NTEP ranks LS-44 in the top 10 against pretty tough competition with a 6.2 mean for use on greens. (Declaration 6.4, Shark 6.3, Tyee 6.3) In Fairway trials it again ranks in the top 10 with a mean of 6.0. (Declaration 6.2, Penneagle II 6.1, Shark 6.1) LS-44 has proven it can play with the Big Dogs. Keep it in mind when you need a tee to green variety of creeping bentgrass.

PERENNIAL RYEGRASS: Rounding out our latest Perennial ryegrass varieties is WinterStar chosen for its fast establishment and early maturity for improved transition. These qualities make it an excellent choice for the overseeding market. PLUS WinterStar with its dark green winter color and salt tolerance makes it a great choice for any turf situation. Winterstar joins Pleasure Supreme, Amazing GS, Phenom, Amazing and Nobility, creating a line up that is ready to meet all your Perennial ryegrass needs.

JUST IN

We have just been informed that Phenom has ranked consistently at the top of drought tolerance trials maintaining a minimum 25% green cover approx. 48 days after irrigation was withheld. (75% cover up to approx. 34 days/ 50% cover approx. 41 days). Add this to Phenom's other highly rated turf qualities, including Gray Leaf spot resistance, makes Phenom a desirable variety in any climatic area.
www.ampacseed.com/phenom.htm

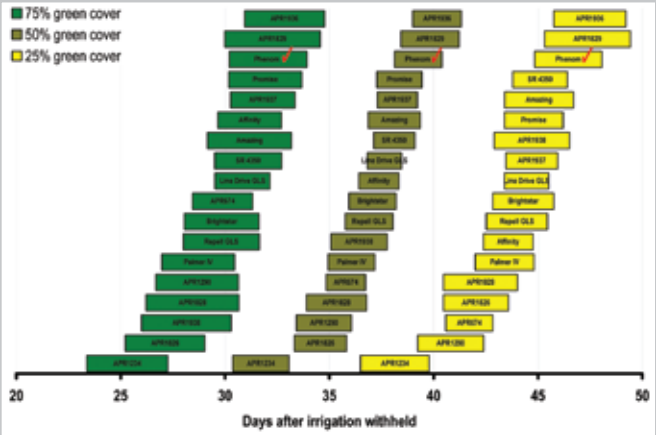

Figure 2. Confidence intervals (95%) for the number of days after irrigation is withheld before varieties reach 75, 50, and 25% green cover (2007).

MARKET UPDATE

As most of you know by now, demand is greater than supply on almost all turf grass varieties for many different reasons. The common denominator in all the different reasons is that we are not able to adequately produce all the grass seed we would like to meet the demands of our customers both domestically and abroad. With Government subsidized programs on wheat and corn, our available grass seed production acres are shrinking in all areas of the U.S. The soft dollar on the international market, coupled with their own lack of available seed and acres of production, has opened up more demand for seed shipped outside the U.S.

That addresses some of the issues of the short supply and increased demand, which in turn naturally causes prices to rise. Add to this increased costs of petroleum products affecting not only transportation to your door, but also the cost of raising these crop with increased cost of fertilizer and farm fuel to run equipment and you can understand another aspect of why prices are on their way up.

It's true that at the moment I am writing this newsletter, most of you are still sitting on rather large amounts of inventory at your locations. Some of you are leery of all the talk about seed shortages and higher pricing.

For us in Oregon, we are personally seeing the changes and feeling the crunch of getting our varieties produced in all production areas, not just Oregon. We are seeing the result of the push for ethanol crops in the grass seed industry. If all of us look around, we are also seeing it in the grocery store with the price of bread, milk, cereal, and meat; anything that is dependent at some level on agriculture. (I'm personally afraid it will show up soon in my Green Fees!)

Crystal Ball says that the turf grass supply will remain tight going into Fall 2008 and continuing through Spring 2009, possibly stretching into the following crop year as well due to the length of contracted wheat and corn. Early bookings – even with price to be determined – is a good idea. Not only will it give Ampac an idea of where our focus should be on securing seed, but it should also give you the distributor some comfort knowing you will have seed available to you when you need it.

From the Farm

By George Pugh

The first day of April and the sun finally has come out. Unfortunately, the Oregon Department of Agriculture's meteorologist says that the sunshine will only last a few days. Looking around the farm things seem to be in about an average condition. We are spreading our second and final spring application of nitrogen and spraying for broadleaf weeds. The nights are frosty and the days, in the 50's, are relatively warm. Maybe a recap of how we've come to "average" is in order.

I should preface my remarks with the acknowledgement that I am commenting on the conditions in the Willamette Valley, which is home to

95% of Oregon's grass seed production. The balance is in dryer regions of the state and is under irrigation. That being said, rainfall has been about optimal in this valley. The 1.5+ inches that we got in September gave us an opportunity to sprout some grassy weeds and get good control from our fall herbicides. What planting that was done before the end of October had both good moisture and temperature to get an excellent start. This is important to give the "babies" a chance to outgrow the slugs. As the temperatures cool and growth slows uncontrolled slugs (and they are difficult to control) can decimate a seedling field.

Since early November we have had very adequate moisture but below average temperatures. The TV weather people like to tell us that we are below average on the rainfall, but for grass seed production 23 inches of rain at the right time will produce as good of a crop as the 43 inch average randomly applied. Right now we need warmer temperatures rather than more rainfall. So I think we are looking at average acreage yields. But the question is, "How many acres?"

We don't raise much corn and, because of climatic reasons, no soybeans are raised in Oregon. But we can raise wheat. Most of the wheat in the valley is soft white winter wheat. After fall planting it was estimated that we had an addition 100 thousand acres of winter wheat planted. Spring wheat acreage appears to be up also. Where did the acres come from? For the most part, from formerly grass seed producing acres. Because the commodities are not big players in the Willamette Valley and because seed companies do not share their acreage numbers on contracted production, the only reliable reporting of production is through the Oregon State University Certified Seed production program. The certified production acres can be extrapolated to acres as a whole in most species except annual ryegrass which has few certified acres in relationship to the whole crop. While the 2008 certified acres are not in yet, 2007 certified perennial ryegrass acres are down 49% from 2006 figures and the casual observation is that the decline will continue into the 2008 crop.

Certified Tall Fescue acres declined 25% from 2006 to 2007 but the strength of that market probably has reversed the decline for 2008. Casual observation, again, is that few tall fescue acres than perennial ryegrass acres became wheat acres for the 2008 crop.

Surprising to me was the number of historically annual ryegrass fields that became wheat fields this year. Normally, annual is raised on ground too wet to successfully raise winter wheat but wheat survival this year appears to be good.

Strong orchardgrass prices have protected those acres from wheat and more acres have / are being planted. The impact of the "Choke" disease varies from year to year and will have as much to do with the pounds of orchardgrass seed available this fall as will the acres.

So, my best guess for this year's crops is; Tall Fescue slightly up, Perennial Ryegrass considerably down, Annual Ryegrass slightly down and Orchardgrass sideways.

My guess are only worth what you've paid for it. Weather in the month of May and June can change things by percentages but Oregon, year in – year out, is a good, consistent producer of grass seeds. Here's wishing the best of luck to us all, producers and marketers.

Year around nutrition is important for whitetail deer as they experience two stress periods annually. Winter stress is obvious during periods of snow and cold when little food is available. Deer also experience stress during summer as they require vast amounts of nutrition for body maintenance and growth, antler growth and lactation. A legume food plot on average produces six thousand pounds of feed per acre per year, and that is high quality feed and protien. If you compare that to a typical woodland area that on average produces one thousand pounds of feed per acre per year that is low quality feed with very low protien (4-8%). Since many regions have deer herds above the habitat's carrying capacity it is easy to see how native vegetation can use some help. The benefits of planting food plots to maintain a healthy herd all year long is very clear!

Food plots are the perfect partner by providing additional food that has higher nutritional value, reduce browsing pressure on native vegetation and allow for increased forest regeneration. More importantly, food plots can have a huge impact during winter when native foods are scarce. Food plots can be divided into nutritional and hunting plots. Nutritional plots provide additional nutrition to the deer herd while hunting plots provide a place to harvest deer. Nutritional plots are typically larger (1-5 acres) than hunting plots (¼ -1 acre) and contain cool-season annuals (**Wildlife Perfect Brassica Mixture**) and perennials (**Wildlife Perfect Grazing, Chicory & Clover, and Ultimate *Plus* Mixtures**) as well as warm-season annuals (corn and beans). Hunting plots may contain cool-season annuals or perennials or warm-season annuals planted for forage.

A good food plot program provides high-quality year around nutrition for deer. Research indicates if at least 2% of a property is planted in food plots, there will be a measurable impact on the deer herd's weights, antler growth and reproductive success. If possible planting 5-10% of an area will have more noticeable effects. These percentages provide additional forage and guard against poor site or weather conditions. Plant 60-70% of the food plot acreage in **Wildlife Perfect Grazing, Chicory & Clover, and Ultimate Plus Mixtures**, 20% in **Wildlife Perfect Brassica Mixture**, and 10-20% in warm-season annuals.

Wildlife Perfect perennials are plant species that live for more than one year and include **Hunt Club™ White Clover** and **Starfire Red Clover, Rackbuilder™ Alfalfa, Plot Enhancer™ Chicory**, and birdsfoot trefoil. Clovers are the number one cool-season perennial and chicory and trefoils are valuable because of their drought tolerance. Perennials are more economical and productive than annuals in the long term and require periodic mowing, fertilization and weed control. Annuals are easier to establish and produce more forage than perennials during the first few months but they need to be replanted every season. **Wildlife Perfect Brassicas** are cool-season annuals that include **BuckGro™ Forage Turnip, Rutmaster™ Hybrid Brassica and Emperor™ Forage Rape**. The **Wildlife Perfect Brassicas** provide abundant (up to 10 tons of forage per acre) highly digestible food containing up to 38% protein. Warm season annuals consist of corn, peas, Lablab, millet and soybeans. Corn is especially valuable because it is used for both food and cover, but have you looked at the price of a bag of corn lately?

Food Plot locations are often limited to existing habitat and topographic features. Food plots can be planted in fields, along logging roads, in log landings and nearly anywhere else sunlight reaches open ground. Ideally, food plots should be distributed evenly throughout the property, and long irregularly-shaped plots are preferred over round or square plots because they maximize the amount of edge. Edge is the transitional zone between habitat types. It often contains early successional plant species and is an important component of deer habitat.

Wildlife Perfect food plots are good for deer, hunters and other wildlife. Prior to planting always conduct a soil test and lime accordingly. Nutritional plots help ensure deer get adequate nutrition and hunting plots facilitate doe harvests to balance deer herds with existing habitat conditions. Food plots are also great places to find shed antlers in the spring.

For more information on **Wildlife Perfect** go to www.wildlifeperfect.com. While there, check out our new Wildlife Perfect reference chart (www.wildlifeperfect.com/images/WPMixtureGuide4-1) for helpful guidelines on selecting the right mixture for your area and times for planting!

ATTRACT the WILD!!