

The Ampac Impact

July 2003

A Quarterly News Publication

An Update of Current Production Conditions

By Aaron Kuenzi

Current production conditions in the Willamette Valley of Oregon look to be all over the board. As many of you know we had an extremely dry and very cold fall followed by a very wet and mild winter and spring. Water makes things grow and by the end of spring a lot of the crops seem to look better as the weeks went on. Perennial ryegrass made the most impressive comeback.

Overall, yields look to be off for this harvest.

- Many first year fields of PRG that had very thin and weak stands in February still look thin. 2nd and 3 year old fields have healed up some. However, we still look for PRG yields to be less than average this harvest. Inventories are lower than they have been a real, real long time.
- Tall Fescue yields look to be near average this year, as the dry fall didn't affect it as much. One thing to consider is that there are fewer acres of TF than most years. Wheat prices a year ago kept some of the TF from being planted that most companies wanted to put in the ground. Inventories are still fairly high.
- Annual ryegrass production looks like it could be off some this year due to slow establishment in the fall and the wet spring. In April a lot of the ARG looked yellow and was still not fertilized because of the wet weather. Most of the ARG did end up getting fertilized but it was a couple of weeks later than normal so we'll see what affects that has. Inventories could be slightly higher than normal.
- Fine fescue production yields should be okay this harvest however there are fewer acres to be harvest. Inventories are lower than they were last year.
- Orchard grass fields look like disease and weather has taken its toll on them. We anticipate somewhat lower yields. Inventories are slightly higher than normal.
- We are expecting Kentucky Bluegrass yields to be down this year and there are fewer acres in the ground. The field burning issue continues to have an affect on the acres of production.



New Developments

AMPAC Introduces a New Turf-Type Tall Fescue



AMPAC Seed Company is proud to introduce **Cochise III** turf type tall fescue. **Cochise III** will be commercially available this fall. Because of limited production we ask that you talk to your sales representative so we can make sure and meet your needs. **Cochise III** rates equivalent to the top variety in overall turf quality in the 2002 NTEP report (Schedule A). Look for yourself and you will see **Cochise III** is one of the BEST Tall Fescues. **Cochise III** was selected out of Rutgers University based on dark, open turf and freedom from disease. **Cochise III** has an endophyte level of 88%. **Cochise III** will be available this fall in very limited quantities. But we would like to get **Cochise III** to as many of our customers as we can. Please let your sales representative know if you are interested in using **Cochise III** this up coming season.

Agronomic Characteristics

- Dark Green
- Improved Disease Resistance
- High Endophyte
- Very Dense Turf
- Fine Leaf Texture
- Drought Tolerant

Overall yields look to be off for this harvest. Of course we won't know for sure until the combines are in the field. On thing is certain though, the fields look to be weedier than most years. Slow grass seed establishment in the fall caused more weeds to get established; and most of them to be better established. Also the wet spring kept some of the chemical applications from working properly. The last variable and concern is that from May 1st through June 20th we have only received 1.36 inches of rain. For some of you that may sound like quite a bit; however, normal rainfall for those dates in the Willamette Valley is 3.79 inches. Not only has the Willamette Valley been relatively dry but we also saw some record temperatures in June. From June 4th to 8th we had temperatures between 90-100 degrees. Just this past week while most of the crops were filling out we had no moisture and more hot weather; therefore we expect lighter seed test weight as well. The combination of heat and lack of moisture will no doubt have an adverse affect on yields.

Competitors Variety vs. Cochise III



5.6	Turf Quality	6.0
6.5	Color	6.7
5.3	Leaf Texture	5.8

New Developments

AMPAC Introduces a New Strong Creeping Red Fescue!!!

Look what is new for AMPAC Seed Company this fall! **Gibraltar** is a new Strong Creeping Red Fescue released from Rutgers University. Its high endophyte levels allow it to perform better under natural stresses like heat and drought. **Gibraltar** was selected for its disease resistance, low-prostrate growth, dark green color, and high shoot density. In a turf trial at Adelphia, New Jersey, established in 1998, **Gibraltar** ranked 4th out of 32 Strong Creeping varieties for Turf Quality. **Gibraltar** will be entered into the NTEP trials this fall. So look for more data to come from that.

Due to the weather conditions last year there is going to be limited production of **Gibraltar**. So please discuss your needs with your sales representative. At AMPAC we expect to make great strides in our turf program in the next few years. Continue to look for other new and improved turf varieties that will be introduced to AMPAC's turf lineup soon.



North Brunswick, NJ
Strong Creepers

Variety	1999- 2001 avg.	Red Thread May 2001	Color Sept. 2001
Jasper II	6.4	6.0	7.0
Gibraltar	6.2	7.3	6.7
Navigator	6.1	8.3	6.3
Pathfinder	5.0	3.7	5.3
Shademaster II	4.7	3.7	4.3
Common	3.1	4.3	3.3

For complete trial information, refer to
Rutgers 2001 Turfgrass Proceedings.

Agronomic Characteristics

High Endophyte
Fine Leaf Texture
High Shoot Density
Medium-Dark Green Color
Improved Disease Resistance
Low, Prostrate Growth Habit
Aggressive Tillering

Forage Brassicas

In an effort to continue to educate all of our customers on brassicas we asked permission from Ed Ballard to utilize his recent article on brassicas.

Extending Fall Grazing With Brassicas and Cereal Grains

Edward N. Ballard

Animal Systems Educator
Effingham Center

Some livestock producers are looking for something to “spice up” their late fall and winter feeding scheme. Along with stockpiling, growing selected varieties of annual ryegrasses, cereal rye, spring oats or forage brassicas can provide high quality forages for grazing in late fall, winter and/or very early spring. Forage Brassicas, such as rape, kale, turnips and swedes are high yielding, high quantity, fast growing crops. My recommendation for late fall and winter grazing would be a combination of turnips and spring oats. However, if you want to continue grazing early next spring I would also include some annual or cereal rye in the mixture.

USE OF BRASSICA CROPS IN FALL AND WINTER GRAZING SYSTEMS

The above ground parts (stems and leaves) or rape and kale and all parts (stems, leaves, and roots) of turnips and swedes are utilized by livestock. Brassicas are high quality forage if harvested before heading. Above ground parts normally have 20-25% crude protein and 65-80% TDN. The roots of turnips and kale usually have 10-14% crude protein and 80-85% digestibility. Brassicas can provide grazing at any time during the fall or early winter depending on seeding date.

Turnips grow fast and can be grazed as early as 70 days after planting. They reach near maximum production level in 80 to 90 days. Including spring oats with the turnips increases both the total production and digestibility of the forage. The proportion of top growth for turnips to roots can vary from 90 percent tops/10 percent roots to 15 percent to/85 percent roots. Turnips can be seeded any time from when soil temperature reaches 50 degrees until 70 days prior to a killing frost.

Ideal time for fall seeding is sometime during the first 15 days of August.

Swedes, like turnips, produce large edible roots. Swedes yield more than turnips but require 150 to 180 days to reach maximum production. Rape is one of the best crops for fattening lambs and flushing ewes. Yield is maximized with a 180-day growth period for many varieties while most hybrids; on the other hand, produce greatest yields when Page 4 allowed to grow 60 days before first harvest and 30 days before the second harvest.

ESTABLISHMENT OF BRASSICAS

Brassicas require good soil drainage and a soil pH should be in the range of 5.5 to 6.8. Brassicas can be no tilled into a sod provided it has been killed with glyphosate. This reduces insect problems. They can also be seeded into wheat stubble. Clean till seeding works well but may have increased insect pressure. If seeding after crop farming, herbicide carryover residues are an enormous problem for Brassicas and small grains. Some commonly used herbicides can affect the establishment and growth of Brassicas for up to 24 months.

As a rule, carry-over label recommendations for sugar beets

are usually applicable to most members of the Brassicas family. Use 2 to 4 lbs/acre of seed for turnips and 3.5 to 4 lbs/acre for rape or kale. Drill the seed on 6-8 inch row spacing and place seed no more than 0.5 inch deep. When seeding spring oats or cereal rye with turnips the usual seeding

Forage Brassicas

rate is 1.5 to 2 bushels per acre of the small grain. Some producers have had success in aerial seeding of turnips, spring oats and cereal rye in to standing corn in mid-August. Again, check out your herbicide program for potential carryover and grazing restrictions before trying this method of seeding. Fertilizer should be applied at the time of seeding to give the brassicas a competitive edge on weeds. Apply 75 to 80 pounds per acre of nitrogen and fertilize with phosphorus and potassium similar to what would be applied for a small grain.

HOW TO GRAZE

When possible, turnips should be strip-grazed (size of available grazing are controlled by temporary electric fencing) during the growing season, much like a rotational grazing system. During the growing season strip of and behind the animals can be used to control consumption, allowing regrowth, preventing wastage, and conserving available dry matter. Strip grazing limits grazing damage to the root and lower leaf, allowing leaf surface for regeneration of plant growth. If regrowth is desired, at least two inches of leaf should be left intact. Generally animals will consume the leafy portion of the plant before progressing to the root portion.

Ed Ballard is the Animal Systems Educator out of Effingham, IL who has been instrumental in showing farmers how to make more money raising Beef Cattle than corn in central Illinois. He does this by utilizing brassicas, oats, cereal rye, and annual ryegrass to extend the grazing season. Ed vigorously recommends improved forage varieties to beef, sheep, and dairy producers. He has graciously allowed us to utilize this article in this month's Ampac Impact.



Appin Forage Brassica

Looking to the Fall for establishing cool season perennial pastures

Richard H Watson

As I look out my window on yet another rainy spring day in Virginia, it is certainly nice to have some relief from the last few years of drought. However, there have been some obvious problems caused by all this rain, notably getting anything sprayed, seed sown, and let's not mention trying to make hay.

Even those lucky enough to be able to get heavy equipment on their ground and get something sown have encountered a few problems. With such a wet spring following a long period of drought, there can be problems that affect the successful establishment of cool season perennial pasture species. The drought and cold winter severely thinned or killed many existing stands, and this provided a big opportunity for annual weed species lying dormant in the ground to germinate and get established when the spring came. Even if you were able to get your seed sown, these weeds are serious competition for forage species, robbing them of valuable sunlight, and nutrients.

Fall Seeding Perennial Pastures

Not being able to spray herbicide further compounds the weed problem and allows them to mature and produce seed, to cause you problems in subsequent years. At the very least your cool season pasture will not establish as well as it should have and it is possible that you could have a complete loss if the weed species have too much of an advantage over your forage seedlings.



Weeds can choke a new spring-seeded pasture

Establishment success is always improved by using high quality seed and species that are fast to germinate with good seedling vigor. With Ampac's improved forage grass and legume varieties, you can certainly expect good germination and plant vigor, and utilizing the custom pasture mixes in the Pasture Perfect™ program will take advantage of using a multiple species mix to spread the risk at establishment. However, sowing a perennial pasture should be seen as an important investment, and steps should be taken to ensure that the return on this investment is realized. Therefore, it is sometimes prudent to explore alternatives to spring sowing if the chances of success are significantly reduced. While spring will always be an important time for sowing pastures, we sometimes get caught up in trying to fight against nature because we have always done something a specific way in the past. In reality this is a fight we will always lose in the long run. The key to

avoiding this is having the flexibility and forage species/varieties that will allow us to work with nature rather than against it. Forage producers always need to plan ahead but also need to incorporate contingency plans to deal with all eventualities, such as a very wet spring or a very dry summer. So this fall, perhaps more than others, will be an important time for sowing cool season perennial pastures. Fall sowing has several advantages over spring sowing.

The most obvious is the reduction in weed pressure, to get a better start in life.

Fall sowing can also reduce risk of insect predation and disease.

The obvious challenge in waiting to establish cool season perennial pastures in the fall is what to do for forage during the preceding spring and summer. It is a common practice to use summer annuals such as pearl millet or sorghum-sudan hybrids to provide forage for the summer period, and these are very successful if managed properly to maintain forage quality. Another option is the use of Pasja forage brassica. Most of you are probably now aware of the range of forage brassica products available from Ampac. Pasja is one that can be sown in the spring or summer



Pasja Forage Brassica

and provides excellent quality forage until you are ready to sow your pasture in the fall. Pasja is very quick to germinate and will compete with any weed species present. The Pasja can also be utilized with the summer annual grasses to greatly improve the quality of the forage.

Fall Seeding Perennial Pastures

Using a summer forage crop to prepare for a fall-sown cool season perennial pasture also has the added advantage of breaking the life cycle of many of the insect pests, further improving the chance of good establishment. It is our aim at Ampac to not only provide you with the very best in quality forage products, but also to provide a range of products that are adapted for different uses and geographical/climatic conditions.

This diversity in forage products will give farmers the flexibility required to work effectively within their resource constraints and the ability to adapt to changes in environmental conditions to maximize their production and success in establishing new pastures.

Annual and Italian Ryegrasses a Great Cover Crop and Forage for Intensely Managed Dairy Farms.

By Timothy J. Fritz, Agronomist

More and more highly managed dairy farms in the Mid-Atlantic region are getting excellent results from short lived Ryegrasses. Annual ryegrasses typically die after setting seed and Italian ryegrasses typically are productive for 2 years. Planted in September after corn silage or other summer crops such as sorghum sudangrass, these ryegrasses will serve as a cover crop that produces super quality forage. Ryegrasses are high in energy including sugars and low in fiber. Protein content is relative to nitrogen fertilization and of course time of harvest. Protein content drops about .5 to 1 point for every day past heading date. With adequate growing conditions, fertility and management you can expect 3 tons or more of dry matter. Short lived ryegrass are productive when soil moisture is good, high fertility, and temperature between 40 and 85 F. Newer varieties are leafier and higher in productivity. Because this high productivity, these ryegrasses stabilize the soil, increase soil organic matter, and remove (recycle) nutrients in addition to providing super feed. Follow with a summer annual forage such as corn silage, sorghum sudangrass or possibly a brassica such as turnips, to keep your farm producing high quality forage for as many months as possible.

Typical ryegrass silage analysis ranges (tetraploid varieties will have higher energy levels and lower fiber levels):

Crude Protein	18 to 24%
ADF	24 to 28%
NDF	38 to 50%
NEL	.73 to .78
RFV	120 to 150

Grazing forage analysis at 6 to 10 inches is incredibly good and I sometimes question whether we can believe the results. The cows will tell you quality is excellent but I recommend adding fiber to the ration.

Crude Protein	23to 28%
ADF	15 to20%
NDF	25 to 35%
NEL	.75 to .90
RFV	200 to 290

Annual and Italian Ryegrasses a Great Cover Crop and Forage for Intensely Managed Dairy Farms.

Double Crop after Corn Silage, Sorghum Sudangrass, and other crops.

Seeding Dates: **Late August to Mid October. For a November harvest plant prior to mid September**

Seeding Rates: **30 lb/acre for diploid varieties
40 lb/acre for tetraploid varieties**

Seeding Methods: **Conventional: Broadcast Seed followed by Culti-packer or Brillion Seeder
Light disking followed by surface broadcast and culti-packer.
No-till Drill: Seeding depth 1/4"**

Nitrogen Fertilization: **50 lbs at planting (can use manure)
50 lbs late March
50 lbs after each harvest. (grazing every 20 to 30 days or 2 cycles)**

Fall Management: **Excessive fall growth should be harvested, grazed or clipped to 3 or 4"**

Silage Harvest Dates: **Nov., mid-April, early May and late May if not replanting quickly into alternative crop. Silage should be made when crop is 15 to 20 inches or in boot stage. Protein begins to drop after heading but not as severe as a small grain. Italian varieties typically have the ability to be productive for 2 plus years**

Crop Rotation: **Not effected by ryegrass. However, ryegrass should be either moldboard plowed or sprayed with 1.5 qt of glyphosate (Roundup) per acre to kill the plant. If not controlled, it may complete with next crop. Annual and Italian Ryegrass can become a weed in small grains.**

Grazing Dates: **When plants reach 6 - 10"**

A special thanks to Don Schwartz and Stan Fultz Extension Agents serving Washington and Frederick Counties Maryland, respectively for all the research and educational efforts.

(For seeding dates and varieties to use in your specific area please contact your Ampac representative. Ampac Seed Company is pleased to have Abundant and Winter Star Annual ryegrasses (both tetraploids) and Fantastic (diploid) and Feast II (tetraploid) Italian Ryegrasses to offer to our customers.)

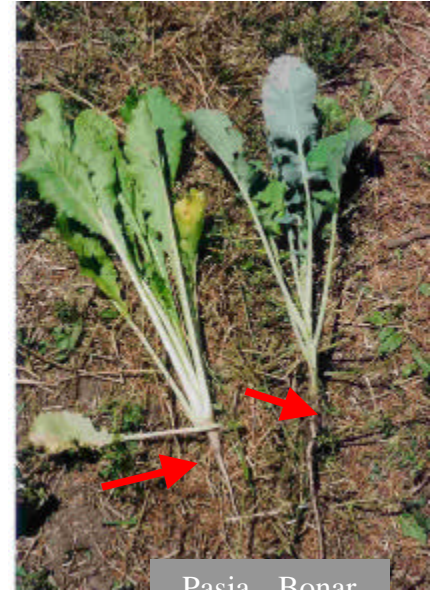
Dave's corner July 2003

As I drive down the road humming "Travelin' Man" by Rickey Nelson I thought I'd send in my report of what I've been seeing. In past newsletters and meetings I have written and talked about brassicas, Endura Kura Clover; Attention alfalfa, and Kopu II White Clover so I thought a photo essay would be helpful to explain what we are seeing "in the field."

Brassica update:

The brassicas appear to be performing exceptionally well with several grazers already grazing Appin or Pasja for the second time. Some grazers were caught off-guard because they did not expect so much high quality forage so fast. At the same time there are producers not fertilizing enough to achieve maximum production in subsequent grazings/harvests. Remind your producers to use 50-70 units of N and 20-30 units of P after each harvest to ensure top production for each harvest. Wock Cattle Farms near Jerseyville, IL have a very nice stand of Pasja, Appin and Bonar Rape in grazing trials. Jack Wock reported that they are ready to graze their Bonar in a week or so and that it was well over waist high on June 20.

Pasja Hybrid Brassica and Bonar Forage Rape in rural Pana, IL on June 20, 2003 planted in early April 2003. Note the deep tap root on both varieties that will help the plant grow during the dry summer.



Pasja Bonar

Appin Turnips (shown below) taken in rural Pana, IL on June 20, 2003 planted in early April 2003. Note the small bulbs with large forage leaves.



To the right is a photo of cattle grazing spring oats and Appin turnips in central Illinois. These turnips were grazed within 60 days of planting. (Photo by Ed Ballard, IL Extension)



Clover update:

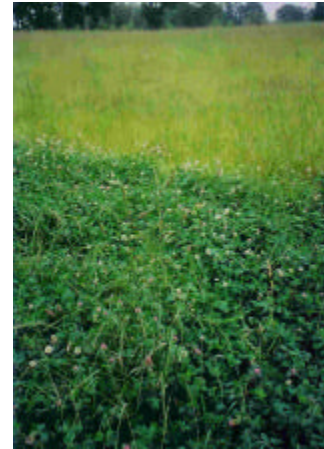
I had never seen winterkilled white clover until Richard Watson and I were in Arlington Wisconsin earlier this spring. In the plot where white clovers were frozen out Endura Kura Clover showed excellent cold tolerance and was green, lush, and growing. I also saw a field of Endura in Southern Ohio that was planted in the spring to 2002 that was very productive. This field near Albany, Ohio was planted as part of an experiment on a grazing dairy (owned and operated by Bill Dix and Stacie Hall) in conjunction with Ohio State University.

In the same experiment with OSU we have Kopu II



Bill Dix is more than elbow deep in second year Endura Kura Clover.

and StarFire planted together with a grass mix. Dr. Barker called the Kopu II "superb" at this location in a recent report. The nitrogen produced by the clover made a significant difference in the grasses (see photo below). The nitrogen credits delivered by clover should not be ignored. Even though the exact amount of N provided a field is rarely scientifically quantified the use of clovers to supply N and forage feed value cannot be denied.



Kopu II White Clover and Starfire Red Clover with a grass mix.



Dr. Dave Barker, OSU Agronomist, holds a two year-old plant of Endura Kura Clover showing a 9+” deep tap root. The plant had yet to put out many rhizomes

Attention Alfalfa Update:

During this past winter there was significant winterkill in many alfalfa fields in WI, MN, and IA. At the alfalfa research station where Attention with StandFast™ technology was bred in western Wisconsin there was significant winter injury/winterkill on some of the varieties that are sold on the market today. The Attention did not appear to suffer winter injury or winterkill. In fact, the Attention looked exceptional, showing improved growth in the spring over competitive varieties (see photo). Reports are coming in from spring 2003 plantings that Attention “establishes a lot faster” and that it “is more vigorous than other alfalfas”. I walked in Kenny Bontrager’s Attention alfalfa field in northern Indiana on June 24, 2003 that was planted in April 2003 and it is ready for first cutting; he is very pleased.

While we’re discussing alfalfa...I also walked in an Indiana field of Radiant alfalfa that was established in the extreme drought conditions in 2002 that some thought would not make it. This field now looks outstanding and is ready for second cutting. Mark Perry, territory manager in the area has been keeping his eye on this field of Radiant and he stated that this field had “unbelievable recovery after establishment in drought.” He further stated that “we have an outstanding, lush, productive field, which looks to be one of the better fields in area this year, it’s an awesome field.” Maybe the strong roots and crowns that Radiant has helped make a difference...maybe we should add that Radiant has “deep roots”! Seriously, I know that many producers are suffering from adverse weather with either too much or too little rainfall. Our prayers are with each of them and you too as you deal with stressful times. I hope that our improved forages will help the producers to make better and cheaper forages that help them become more profitable.



The photo above shows the improved spring growth and thick stand of Attention alfalfa (with red flag) on May 8, 2003. Attention averaged 2-4” taller than conventional, competitive varieties at the research station plots.

Late-Summer Seeding Alfalfa a Viable Practice

**By Dave Robison, Agronomist
Ampac Seed Company**

While many producers prefer spring seeded alfalfa, excessive spring rainfall often causes Midwestern and Northeastern producers to postpone planting alfalfa. Instead of waiting until the next spring to plant, many farmers in these areas have success by sowing their alfalfa in the late summer. There are many benefits that late-summer seeding alfalfa brings to the producer. With these benefits there are also risks to manage to ensure success when planting during the late summer. Both the benefits and risks follow in the discussion below.

One of the benefits of late-summer seeding alfalfa is that across much of the region fall rains and cool temperatures provide ideal environment for seedling growth and establishment of alfalfa. This is also an ideal time to establish cool-season grasses with the alfalfa. There is also less risk of fungal diseases usually associated with cool damp conditions in the early spring.

Another benefit of late-summer seeding alfalfa is that the field work can be accomplished while there are fewer time constraints. An excellent practice is to prepare the seedbed mid-summer and plant the alfalfa when there is adequate moisture and when there is less pressure to plant other crops. This also allows the producer to control weeds with tillage before planting his alfalfa in the late-summer.

While spring seeded alfalfa is often planted with oats as a companion crop to help control weeds; it is important to not use a companion crop with late-summer sown alfalfa. Cover crops take vital moisture away from late-summer seeded alfalfa seedlings. There will also be less need for a companion crop because there will be less weed pressure in the late summer. If weeds are a problem consider using chemical weed control.

Late-summer seeding also enhances yield potential during the first year. By planting in the late summer the producer has an excellent opportunity to harvest a full crop of alfalfa in the

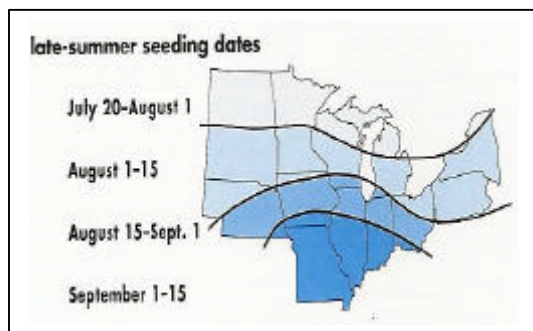
Late-Summer Seeding Alfalfa a Viable Practice

year following establishment. This additional yield in the first harvest year can be quite profitable. Forage yield the year following late-summer establishment is generally equal to that of spring established that same year. While it may be tempting to harvest new growth in the fall after a killing frost it is important to leave the growth un-harvested to ensure having adequate carbohydrate reserves in the roots.

A major risk to be concerned about is the amount of moisture available to establish a good stand of alfalfa. Successful late-summer seeding depends on soil moisture during the establishment period. Do not sow alfalfa unless good soil moisture is present. Irrigation allows late summer seeding in all areas. Again, use of a companion crop is not recommended, especially where the seeding date is August 15 or earlier, because it competes with alfalfa for moisture.

Alfalfa needs at least 6-8 weeks growth after germination to survive the winter. The plant will generally survive the winter if it develops a crown before a killing frost. Fields with less seedling development before a killing frost may have a greater problem with winter annual weeds, particularly in southern part of our region. The objective is to have 6-8" of growth before a killing frost. The chart below shows target dates to have your alfalfa seeded. The later a producer seeds into the late summer, the greater risk of stand failure.

The choice of variety is also a major factor in having success in the late-summer seeding. Producers should sow varieties that have a record of excellent seedling vigor, winterhardiness and high multiple pest and



disease resistance. It is important to choose varieties that have high profit potential. Taking time to study University alfalfa trials in their region can help

producers find varieties that perform well in their area. Producers should not plant "cheap" alfalfa as it often results in lower yields, lower forage quality and shorter stand life. Varieties such as Radiant and Attention often out-yield "cheap" varieties by 25-30%.

Producers should also sow pre-inoculated seed that is treated with Apron fungicide. Apron provides good insurance against stressful weather conditions after sowing alfalfa. Sowing coated seed that is pre-inoculated and treated with Apron can also prove beneficial in establishing stands of alfalfa in the late-summer.

Though not a problem in many areas; Sclerotinia crown rot may be present in late-summer seedings. Although rare in northern areas Sclerotinia has destroyed fields of late-summer sown fields as far north as Whitley County (NE) Indiana. Currently there are no varieties available on the market with good resistance to Sclerotinia Crown Rot.

Conclusion:

If excessive spring rainfall kept producers in your area from sowing their alfalfa and there is adequate moisture this late-summer they can enjoy the benefits of late-summer seeding. By planting at the proper time, using high quality, treated seed of an improved variety, and exercising good management skills many producers will have success with late-summer seeding of alfalfa.