

The Ampac Impact

January, 2003

A Quarterly News Publication

Ampac Soon to Celebrate Its 25th Anniversary!

By **Randy Waldie**
General Manager of Ampac Seed Company

Soon all you ladies and gentlemen will be purchasing your Valentine cards and gifts to impress the special people in your life. I sincerely hope that none of you will do what I did several years ago where in the course of four months I forgot my wedding anniversary, Valentine's Day, and my wife's birthday – in that order. As you may have guessed, there wasn't a lot of conversation around my house (other than me trying to explain that I was certain I had a mild case of dementia). I'm pleased to inform all of you that I'm doing better now.

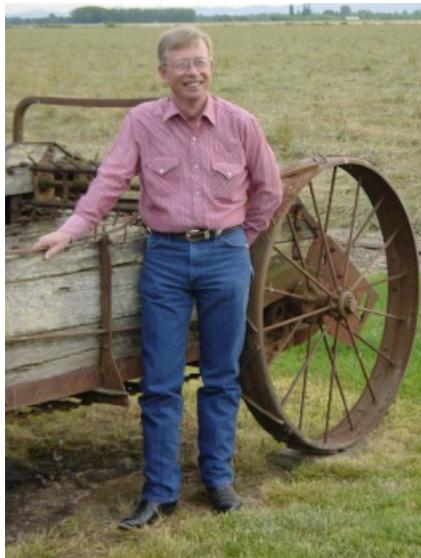
The real reason I brought up Valentine's Day was to let you know about two other significant events that take place on February 14th. First, it will be the 144th birthday for the state of Oregon. Second, and most important to our readers, it will also be the 25th anniversary of Ampac Seed Company. In light of such an auspicious occasion, I'd like to give you a brief history.

On February 14, 1978 Ampac Seed Company (American Pacific) was officially incorporated in the state of Oregon. The company was formed by a group of farmers along with a couple of business people. The initial purpose of Ampac was to be an outlet for seed produced by the farmer/owners on their non-contracted acres. Mr. Alan Hick, a former employee of Northrup King Seed Company, was Ampac's first

General Manager as well as a stockholder. A few years later Mr. Hick was bought out and replaced by John Glattly who had worked for Great Western Lofts in Albany, Oregon. Then in March of 1986, John left Ampac to set up Lesco's Oregon operations. That same month (on the 10th to be exact), I began my tenure as the General Manager at Ampac.

Over the years all those who initially started Ampac Seed Company were bought out with the exception of Pugh Seed Farm, Inc. George Pugh, a fourth generation farmer, serves as Ampac's President and Chairman of the Board. Many of you have had the opportunity to

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George Pugh
President of Ampac Seed Company

DEVELOPMENTS

Kansas City Convention Enjoyed By Everyone

By **Aaron Kuenzi**
Financial Analyst and Ampac Sales Rep.

We would like to take this opportunity to thank the folks we met in Kansas City at the Western Seed Association Convention held there in November. Other than a few delayed flights (for those of us who flew in from Oregon), the time was very enjoyable and productive. From the delicious food to the pleasant atmosphere, we could not have asked for a better time. If Dave would have let us go to bed at a decent hour, we may not have been so exhausted when we returned home though!

We enjoyed meeting some new folks and spending time with our current customers as well. If anyone has suggestions or comments on the meetings, or ideas for things to do differently next year, please let us know. We are already looking forward to next November and building on this year's experience. Thanks once again to everyone we met with. We wish you the best in the upcoming season.

COMING SOON!

York
SMOOTH BROME

Exceptional Yields

Dave's Corner:

When the farm economy is stressed (even more than usual), it's important to emphasize to the dairyman or beef producer the benefits of utilizing improved products. It's important to remember that *yield is not everything*. While yield is still the number one criteria we select for, we also consider palatability, forage quality, maturity, animal performance, how products handle grazing, and so on. That's why we enter both hay yield and grazing studies [see article written by Wayne Nichol in this publication]. In 2001 we also initiated some on-farm and special contracted studies that we'll report on in future newsletters.

Upon reviewing the 2002 University yield and grazing data reports, I can report that we are providing you with excellent products. While we are still awaiting information from some universities, we are quite pleased with our product performance over a wide geographic area. I am particularly pleased to see that

our products are proving to be very palatable and are also exhibiting very solid grazing and hay yields.

Among the varieties performing well across the country are *Duo* Festulolium and *Bronson* Tall Fescue. *Duo* was the most palatable grass in Wisconsin grazing trials at Lancaster for the third straight year, and continues to perform well when compared to the ryegrass varieties trialed for both pounds consumed (in the grazing trial) and dry matter harvested (in the hay trial). Excellent results from *Duo* were seen in the Michigan, New York, Kentucky, and Pennsylvania trials as well.

Bronson Tall Fescue is known throughout the country as one of the most palatable forage tall fescues on the market. In the Penn State grazing trial *Bronson* had over 1,300 more pounds consumed than the nearest tall fescue competitor. At PSU it had significantly higher consumption than all but one other fescue variety. At Cornell, *Bronson* topped the tall fescue hay yield trial for two-year yield. *Bronson* also performed very well in

hay yield trials in Michigan State.

Another notable observation is the excellent disease resistance of the Wrightson forage grasses. *Tekapo* and *Eastwood* show improved disease resistance in Orchardgrass university trials, while *Quartet*, *Aries HD*, and *Maverick Gold* were among the most rust resistant ryegrasses at Cornell.

Radiant Alfalfa, *StarFire* Red Clover, *Tuukka* Timothy, *Tonga* Tetraploid Perennial Ryegrass, and many of our *Pasture Perfect* mixes continue to do very well in nearly every trial. We are also pleased that our *York* Smooth Bromegrass (limited amount available in fall of 2003) continues to shine in trials. We will continue to update our website and tech sheets as the results come in.

Agronomist Dave Robison is our mid-west forage and turf representative – specializing in legumes and pasture mixes. You can send Dave your questions at: dave@ampacseed.com



Cattle grazing trial at the Michigan State University grazing trial.



This MSU fertility trial is an example of other trials that Ampac Seed Company is participating in.

Consider this:

- Dairy farmers need to leave a 2-4 hour period between grazing their herd on turnips and milking them.
- Turf type perennial ryegrass is short and you may want to let your customers know this if you haven't already done so.

Improved Profitability Using Perennial Ryegrass Cultivars

By Wayne Nichol
Animal Forage Nutritionist - Wrightson Seeds

Animal production from pastures is determined primarily by the amount of herbage on offer, however forage quality can modify the performance of grazing animals. Traditionally, plant breeders have focused their selection criteria on readily identifiable cultivar characteristics, including total dry matter production per acre, disease resistance and insect tolerance. While these characteristics are central to the development of productive and sustainable cultivars, they fail to address the nutritional requirements and forage preference of grazing animals. For grazing animals, plants within the pasture must not only be palatable and readily accepted, they must provide highly digestible feed that delivers the correct blend of energy, protein, trace elements and minerals.

To improve forage quality, the breeders at Wrightson Research have focused on forage characteristics that would otherwise limit animal productivity. Two leading examples from the breeding programme include *Aries HD* diploid perennial ryegrass (HD for **H**igh **D**igestibility) and *Quartet* tetraploid perennial ryegrass.

Aries HD perennial ryegrass has been bred for reduced aftermath heading and better quality, particularly through the critical summer period. Aftermath heading is the development of seedhead and stem that continues through the summer after the initial reproductive development (occurring early in the season). The presence of stem and seedhead reduces pasture quality, and lowers animal performance.

Quartet tetraploid perennial ryegrass is another exciting breeding initiative from Wrightson Research. Tetraploid ryegrasses contain cells twice as big as those of diploid cultivars. Because cell contents contain readily digestible sugars and proteins, feed quality is higher for tetraploid compared with diploid ryegrasses. In addition to the higher quality of tetraploid ryegrass, animals tend to prefer tetraploid cultivars to diploids, therefore feed intakes increase and animal performance is improved. *Quartet* is a true grazing tetraploid ryegrass.

To demonstrate the increase in animal productivity and subsequent increase in profitability, Wrightson Research measured the animal per-

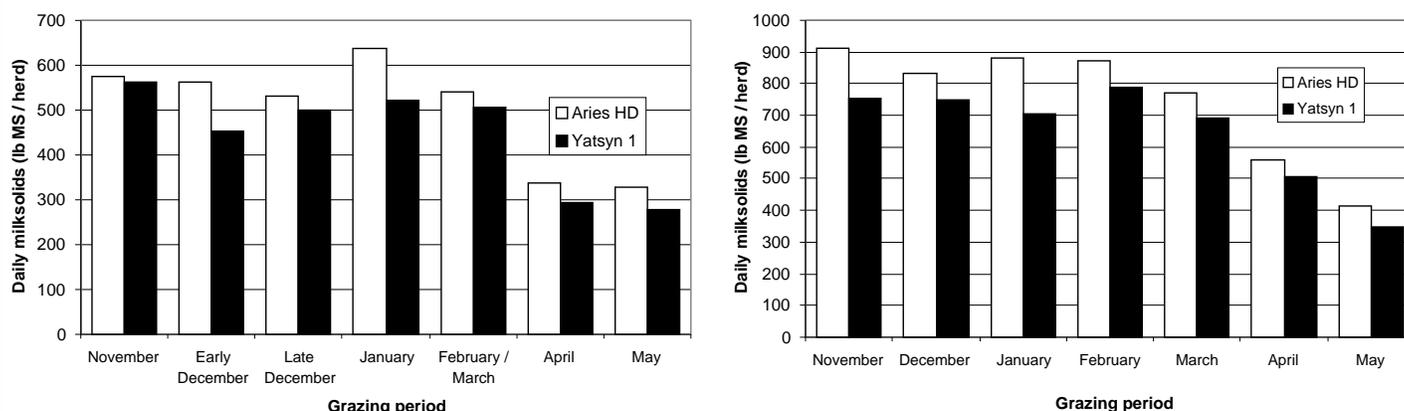
formance off their pasture cultivars using independently managed replicated animal trials. Previous trials have included a full-scale two year dairy trial comparing *Aries HD* perennial ryegrass against the then industry leader *Yatsyn 1*. Another trial compared lamb liveweight gain per acre from *Quartet* tetraploid perennial ryegrass and *Aries HD* against cultivars like *Bronson*, *Vedette* and *Nui*.

For the dairy trial, 78 acres of both cultivars were sown with white and red clovers on a 420 acre property in the Central Hawkes Bay, New Zealand; milking 359 cows in year 1 and 570 cows in year 2. The herd was evenly split in both years of the trial and grazed in one or the other of the two trial cultivars. The cows grazed a commercial perennial ryegrass mix when they weren't grazing the two trial cultivars. In years 1 and 2 of the trial, *Aries HD* produced 11.4% and 13.2% respectively more milk solids per herd per day than *Yatsyn 1* (See Fig 1). Additionally, cows grazing *Aries HD* had a shorter interval from the start of mating to conception (36 days compared to 42 days), and a higher increase in condition score from the start to finish of lactation (0.8 compared to 0.34), than cows grazing *Yatsyn 1*. Milk production and condition scores were statistically significant.

In a three-year lamb study, live-weight changes were measured by an

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Figure 1. Average daily milk solids yield by *Aries HD* and *Yatsyn 1* herds for years 1 and 2.



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Improved Profitability . . .

independent research organization in Canterbury, New Zealand, for animals grazing six-high endophyte perennial ryegrasses. The ryegrass cultivars were sown under code in a binary mix with white clover in February 1997. Lambs were stocked at approximately 11 lambs per acre in May 1997, with a common pasture residual mass maintained on each cultivar by the addition of extra animals (which were included in the final results). Marked differences in lamb liveweight gains were found between ryegrass cultivars that produced similar ($\pm 10\%$) amounts of dry matter (Fig 2). Lambs grazing *Quartet* tetraploid perennial ryegrass

and *Aries HD* diploid perennial ryegrasses produced 56% and 54% respectively more liveweight than the standard industry cultivar for sheep pastures (*Nui* perennial ryegrass) across the three years. Differences between cultivars were particularly evident over the summer and autumn seasons which may reflect differences in nutritional value and endophyte alkaloid concentrations between cultivars.

With animal trial results like these, Wrightson Research has demonstrated that perennial ryegrass cultivars such as *Aries HD* and *Quartet* can significantly improve farm profitability.

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Ampac Soon to Celebrate...

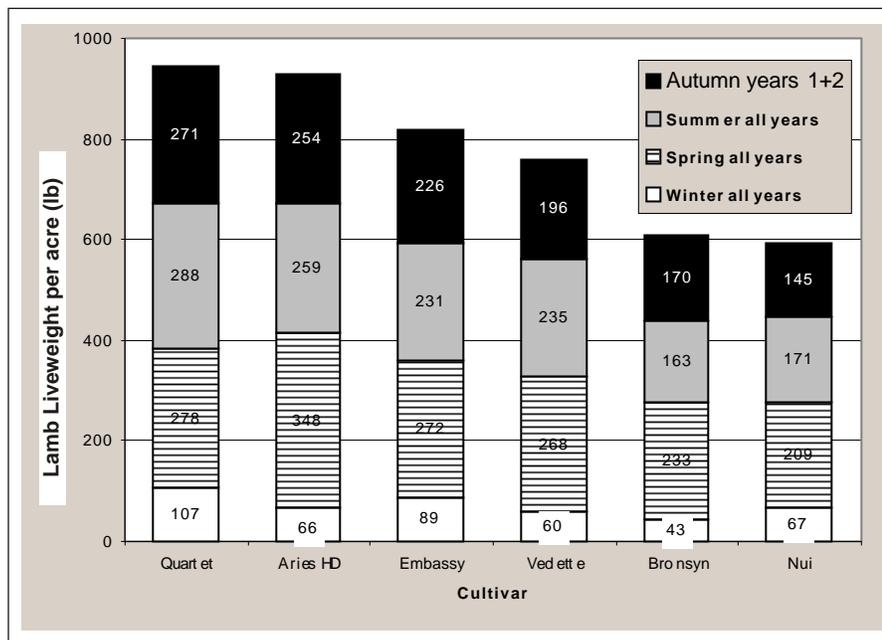
meet George who remains very active on the farm while also being vitally involved with Ampac.

For the first eight years of its existence Ampac was selling public varieties as well as some proprietary varieties purchased from other companies. Ampac really had no identity of its own in terms of proprietary products. We recognized that in order to grow and satisfy our customers' needs, we needed create our own product line.

In 1987 we purchased *Pleasure* perennial ryegrass out of Rutgers and Pickseed's program, and in 1988 we added *Delaware Dwarf*, another perennial ryegrass, and *Cochise* turf type tall fescue from the same program. Since then, we've continued to add various turf products to our proprietary stable. In the mid 90's we secured our first proprietary forage perennial ryegrass to test the waters in that area of the industry. Having achieved mild success, Ampac decided to plunge into the forage arena and hired agronomist Dave Robison in May of 1999. In August of 2002 Ampac and Wrightson Seeds LTD of New Zealand began working together to expand the proprietary forage market in North America. Then this past October we welcomed aboard Richard Watson Ph.D. from the University of Georgia via New Zealand (see previous 2002 issues of the *Ampac Impact* for details). His expertise brings even greater strength to our forage program.

That's the brief history of Ampac. We are sincerely grateful to those who have contributed to our success over the past 25 years. Your continued support and loyalty are a constant reminder of how fortunate we are to have each of you as customers. We are optimistic about the future and trust that this coming year will be a blessing to all.

Figure 2. Mean lamb liveweight gain (per acre) for lambs grazing six perennial ryegrass cultivars. (Average of three years). NOTE: Autumn data contains Years 1 and 2 data only. The study ended at the end of Summer, Yr. 3.



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