

# SEED INDUSTRY

## sprouts big changes

*The seed industry held its field days this past June, and LANDSCAPE MANAGEMENT was there, to get the latest news on what's happening in the world of turfgrass seed research and production.*

by TERRY MCIVER / Editor-in-Chief



*The turfgrass seed industry—which used to move so quietly you could hear the grass grow while you watched it—has, over the course of the 1990's, become a highly competitive arena for product research and development.*

*Our visit to seed country in mid-June*

*was a 400-mile week of field tours, fast lunches and exclusive interviews with seed industry experts who were happy to talk to us about the state of this changing industry. We couldn't include every bit of news, but here's a good sampling of what lies ahead for the industry.—ed.*



**T**he seed supply is reported to be in average supply for 1998-99, with enough supplies of most varieites, due to supply/demand/carry-over scenarios.

"We're going to see an average crop across the board," says **Dave Nelson** of the Oregon Fine and Tall Fescue Commissions. "Nothing big, however the quality of the seed is very good. You never have a loss, occasionally you have a bumper crop. It's all relative to what you're comparing it to. We're halfway along combining, nobody's fired up the cleaners yet. We'll know what yields are [by mid-August]. We're running about 10-days behind due to weather."

"I have heard is the price is strengthening for Oregon turf type tall fescue due to Missouri weather," says Nelson.



**Don Woodhull: Industry has to keep pace with, not pass, urbanization.**

More perennial ryegrass acreage industry-wide is going under the thresher than ever before, reports **Myron Lightbody** of Jacklin Seed.

"The tall fescue and perennial rye look good," says **Don Woodhull** of Burlingham Seeds. "The fine fescues look average. We're going to have a good year, with a lot of acreage. The industry continues to grow and need more seed, with the march of urbanization," says Woodhull. "We're bound to get into situations where for whatever reason our internal plans have not kept up with urbanization, but this year we've planted more acres; now we've probably got a few acres too many."

"We're still buidling 250 golf courses a year, and ryegrass overseeding is like a built-in annuity. What's hurt us lately is the lack of weather-related stress in a lot of the high use areas in the midwestern, Atlantic and northeast regions."

"It looks like a big seed crop, but our carryover is really not that great, says **Jerry Pepin** of Pickseed. "We have such a potentially big crop coming. The fall business will be fine, but the next spring's business, if there's a big carry-over, will have weakening in prices."

"I'm not so sure the perennial ryegrass yields are going to be very high, but there are so many acres, that we're going to have a good amount of seed."

Pepin thinks positively about potential market gluts, and says companies are watching for overproduction scenarios.

"I think a lot of companies have tried to balance supply and demand, rather than thinking there's an open-ended demand out there. We've been pretty careful as far as balancing what we think we can sell."



**Jerry Pepin: Nitrogen use increases seed yields.**

## Comments on industry consolidation:

The business of seed research and the scramble by AgriBioTech to capture market share has brought an added element of anticipation to the seed industry.

It's apparently a buyer's market, and ABT is the only one doing the buying. We asked some seed industry observers to comment on the growth of ABT.

ABT has acquired 26 companies since January 1995. The company wants to acquire 45% of the forage and turfgrass seed market by 2000, with annual revenues of \$500 million.

**Q:** If Agri BioTech becomes the sole seed industry giant, with a handful of smaller companies, what does it mean for the industry?

**A: Tom Stanley**, Turf-Seed, Inc.: "I think overall it's healthy for the industry to have this consolidation, to get a great number of seed companies under one roof, and one management. I think it will go a long way to help stabilize pricing. Hopefully we can get out the situation where we have 20 companies overproducing. Some companies plant seed that they don't have markets for. They speculate that they will have a home for the seed down the road. Hopefully a large organization like ABT isn't going to do that, they're going to be responsible with the approach that they will take to seed production, and I think they will."

**Bill Rose**, Turf-Seed, Inc.: "This venture has reached a size that certainly is to be reckoned with. ABT's path is still not clear, but we hope they can blend the many companies into a unit that is efficient and stabilizing to the industry."

"The future of this industry will see varieties tolerant to herbicide, much greater disease resistance, improved turf performance, all with higher seed yields. With marker genes available and gene transformation, the era of VNS (Variety Not Stated seed) may finally end."

**Craig Edminster**, International Seeds:

"We're all a little surprised that it's happened. We're all wondering when the profitability is going to come. Stockholders need return on their equity. Most of them are looking for 15-16-17 percent, and this seed business has never really managed itself on those kind of margins. You just wonder how it's all going to come out in the wash," says Edminster, reminding that external and internal forces will continue to affect every company, big or small. We've gone through many years of good prices for growers, and for companies, and you just wonder how long it's going to last." □



**Craig Edminster: Industry price drops could be drastic.**





Dennis Combs, left, and David Lundell: Believe in coming acceptance of *Poa supina* for sports fields, tee boxes.

One new varieties for Pickseed this year is elite Sunshine ryegrass. "It has real high seed production," says Pepin. "It's quality is good, first page NTEP."

"It seems like our growers are constantly using more nitrogen,

to get the yields higher. That's one of the reasons the yields are so fantastically high now. And the varieties have been selected for high seed yields."

"We are pleased to see a really good use of turf-type perennial rye this year," says Ronnie Stapp, Pennington Seed. "The supply of seed was very adequate for a strong demand, but we are selling out on most of our top varieties. The acres are there, in Oregon, for an adequate supply again, but with the strange El Niño-driven weather we have experienced, the yields may not be up to par.

"We expect to have a good supply of our Morning Star, Shining Star and Wind Star perennial ryegrasses. Our supplies of our newest varieties, Wind Dance and Sonata, will be less than anticipated.

"We have a nice production acreage in of Winterplay *Poa trivialis* which looks good presently, but as fickle as *Poa trivis* are, we will have to wait and see how that one turns out.

"We expect usage of perennial rye and *Poa trivialis* to grow again this year. As a result, the demand for seed will be strong and the expected supply should be about equal to last year."

#### Rethinking *Poa supina*

"*Poa supina* is our big story," reports Dennis Combs, AG, from

#### KEY (AVAILABILITY):

A=expected surplus; B=adequate supply; C=limited supply.

#### KEY (PRICE):

H= higher price than last season; S= stable, equal to last season; L= lower prices than last season; NR = no response

CULTIVAR	MARKETER	AVAILABILITY	PRICE
<i>Kentucky Bluegrass</i>			
1757	Lofts	B	S
Adelphi	Advanta	B	L
Arcadia	Burlingham	C	S
Belmont	Lofts	B	S
Blacksburg	Turf-Seed	B	S
Blue Star	Pennington	B	NR
Cannon	Advanta	B	L
Champagne	Lebanon	C	S
Chateau	Fine Lawn/Pennington	B	S/NR
Cobalt	Turf Merchants	B	S
Cynthia	Advanta	B	L
Eagleton	Lofts	B	S
Fortuna	International Seed	B	L
Gnome	Turf Merchants	A	S
Haga	Burlingham	B	S
Chateau	Fine Lawn Research	C	L
Classic	Peterson	C	S
Dawn	Lesco	B	S
Dragon	Zajac Performance	C	L
Eagleton	Lofts	B	S
Fortuna	International Seeds	C	S
Geronimo	Advanta	A	L
Gnome	Turf Merchants	A	L
Haga	Burlingham	B	S

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Huntington	Lofts	B	S
Midnight	Turf-Seed	A	L
Misty	Pennington	B	NR
Nassau	Lofts	B	S
Preakness	Lofts	B	S
Princeton 105	Lofts	C	S
Ram I	Lofts	B	S
SR 2000	Seed Research	C	S
SR 2100	Seed Research	B	L
SR 2109	Seed Research	C	S
Unique	Turf-Seed	C	S
Viva	Turf Merchants	B	S
Washington	Burlingham	B	S
<i>Perennial Ryegrass</i>			
Affirmed	Lebanon	B	S
Affinity	Turf Merchants	A	S
ASP 400	Advanta	C	S
ASP 410	Advanta	C	S
Blackhawk	Turf Merchants	B	S
Brightstar II	Turf-Seed	C	S
Catalina	Turf-Seed	B	S
Charger II	Turf-Seed	A	L
Churchill	Lebanon	C	S
Derby Supreme	International Seed	B	L
Dimension	Advanta	C	S
Essence	International Seed	C	S
Evening Shade	Turf Merchants	B	S
Exacta	Lebanon	B	S
Excel	Burlingham	C	S
Gator II	International Seed	C	S



Fine Lawn Research, Inc. The product, also known as supina bluegrass, has held up well in research in England and at Michigan State University, where it survived under 5% sunlight under indoor stadium conditions. Trey Rogers is counted among supina's major domestic supporters.

*Poa supina*—first used in the United States in 1989—is becoming more recognized as a viable turfgrass for sports fields. Recommended uses for *Poa supina* include tee boxes, soccer and football fields.

"It's becoming more mainstream," adds Fine Lawn's David Lundell. "It's being used more in mixtures that require shade tolerance, wear tolerance and quick recovery."

The most appealing aspect of *Supina* is that it appears to be able to offer both shade and wear tolerance, which you don't often find in a turfgrass, they say.

"Usually, the closer a variety gets to shade tolerance, the more you lose of the wear tolerant characteristic," Combs explains. *Poa supina* is the most shade tolerant and wear tolerant grass that anybody knows of. It's more unique than anything else."

"It also recovers from injury better than anything else," says

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Laredo	Turf Merchants	B	S
Manhattan 3	Turf Merchants	A	S
Morning Star	Pennington	B	NR
Palmer III	Lofts	B	S
Paragon	Turf Merchants	C	S
Pennant II	Burlingham	B	S
Phantom	Lofts	C	S
PhD	International Seed	B	L
Prelude	Lofts	B	S
Radiant	Burlingham	C	S
Repell III	Lofts	B	S
Rodeo II	Turf Merchants	B	S
R2	International Seed	B	L
Secretariat	Lebanon	B	S
Sonata	Pennington	B	NR
Shining Star	Pennington	B	NR
SR 4200	Seed Research	B	S
SR 4330	Seed Research	B	S
Precision	Advanta	C	L
Premier II	Barenbrug USA	B	L
Prizm	Zajac Performance	B	L
Riviera II	Roberts	C	S
SR 4010	Seed Research	B	H
SR 4100	Seed Research	B	H
SR 4200	Seed Research	B	H
SR 4400	Seed Research	C	S
Stallion Select	Fine Lawn	B	L
Stallion Supreme	Fine Lawn	B	L
Top Hat	International Seed	B	L
Wind Dance	Pennington	B	NR
Wind Star	Pennington	B	NR

## Research reports

### *Poa annua* good

**Dr. David Huff**, turfgrass plant breeder at Penn State University, is working to improve *Poa annua* (annual bluegrass) for use on golf course greens. (This is the recognized 'home' of many of the best bentgrass varieties.)

Huff is working with the greens-type *Poa annua*, which he describes as "wild and weedy," and the one most superintendents face on golf greens.

Huff wants to produce a uniform commercial product with a good seedhead production.

"We are working to correct this *Poa*'s disadvantages, primarily it's low seed production," says Huff, who spoke at the Advanta Seeds Pacific field day.

"It already has an upright growth and good shoot density," says Huff. "The green-type *poas* are 10 times as dense as the new bentgrasses. You can find 1300 tillers in a square inch, vs. 200-250 in the new bents. What that allows you to do is mow the greens types *poas* very close."

Huff's work has inspired other Penn researchers to take on *Poa* projects, such as micronutrient uptake and use; herbicide resistance and control; and disease resistance.

"Golf course superintendents around the state encouraged me. [They told me] if they didn't have it on their golf course currently, they had worked with *Poa annua* at other courses; they are very supportive of the program," says Huff."

Many superintendents don't like *Poa annua* and try like mad to keep it from establishing on their courses. Others will nurture it as they would a creeping bentgrass green, and are very happy with the results. Huff believes superintendents "don't care about color," when it comes to greens management. "A light colored green—which is *poa*'s usual tint—is acceptable to them."

### *Poa annua* bad

*Poa annua*, *Poa trivialis* and native bentgrass contamination will occur in much of this year's turfgrass seed crop due to mild, wet winters, which favor grassy weed growth. Growers says herbicide failure due to wet weather is another factor. Some weeds have developed resistance to chemical controls, say growers. The elimination of field burning is also a factor.

"1998 is the worst year I've ever seen [for *Poa annua* contami-



Dr. David Huff explains characteristics of bentgrass (top plugs) and *Poa annua* (bottom plugs).

cont. on page next page



nation],” says researcher **Kevin Turner** of O.M. Scotts.

Scotts has recently planted several thousand acres of perennial ryegrass in the Columbia basin in Washington and along the Columbia river.

“It’s an area where we haven’t grown lots of grass,” says Turner. “*Poa annua* and some of the other real problematic weeds don’t do well there. We can get better seed quality, free of contamination.”

Weed-free seed is best assured through careful analysis of the whit tag on each bag of seed, or you can request a copy of the seed test from your distributor, advises Seed Research of Oregon.

#### Brown patch resistance improves

Turf-Seed, Inc. reports progress in brown patch resistance in tall fescue. The severe brown patch, heat and drought conditions present at the company’s Rolesville, NC location have provided an excellent area to uncover germplasm sources with improved summer turf performance, reports **Dr. Melodee Fraser**. The first variety to be released from this cooperative program is Tar Heel, which has a NTEP brown patch rating of 8+, out of a perfect 9.

“We are also developing varieties of tall fescues for arid areas, such as the Western U.S., where dwarf varieties that are dense and dark are desired,” says Fraser.

“Two of these varieties are Matador and 5LMD. Our experience has been that these dwarf varieties will not perform well in severe humid summer climates.”

“We now have seed stock increases of two [Roundup resistant] varieties; PST-4RU hard fescue and PST-5DU tall fescue,” reports **Cystal Rose-Fricker**, research director, Pure Seed Testing, West. “These varieties can tolerate applications of 1 pint of Glyphosate per acre...when the plants are sprayed in the fall. Turf trials with these varieties were also sprayed this spring for weed control with little yellowing and stunting while *Poa annua* was eliminated,” says Fricker.

Jacklin’s Arabia tall fescue has been bred specifically for disease resistance (net blotch and gray leaf spot). Arid 2 was bred for high resistance to brown patch, reports **Dr. Doug Brede** of Jacklin. The company’s Pixie E has endophyte enhancement, and was a top variety in the latest NTEP trials.

Kevin Turner of O.M. Scotts, says the company hopes to have a brand new variety of herbicide resistant bentgrass seed available for the golf course market in 2002. Commercial fields will be planted in 2001. 400,000 lbs. are expected from that first planting.

The company hopes to have herbicide resistant St. Augustinegrass available in 2000; herbicide resistant Kentucky bluegrass in 2002 and herbicide resistant perennial ryegrass in 2004.

International Seeds continues work in high endophyte hard fescue combining dark green color with high seed yield, says researcher **Steve Johnson**. “We’ll have three or four new hard fescue varieties in the upcoming NTEP.”

The company’s Tiger colonial bentgrass has done well in the latest NTEP trials, with high fusarium patch resistance.

“Tiger’s going to go a long way in overseeding and permanent turf,” says **Craig Edminster**, director of research for International Seeds. □

Lundell. “Ryegrass and tall fescue are both bunch-type grasses. You’re going to have some tillering with ryegrass, but it’s not going to creep out from where you plant it. *Supina* will; if it’s not completely beaten down, it will keep coming back.”

The species’ four to five-day germination rate is also an impressive characteristic.

Its light green color is considered a weak point, and some are afraid *supina* is too aggressive once established.

#### European outreach

Turf-Seed, Inc. plans to increase its presence abroad with the formation of Turf-Seed Europe, Inc.

Company President **Bill Rose** made the announcement during Turf-Seed’s field day activities in June.

“The world continues to shrink and the seed industry in the U.S. becomes closely tangled with seed production in Europe and the rest of the world,” says Rose.

“The structure Turf-Seed Europe is not really set up yet or decided. There are a lot of questions we need to ask ourselves on how it’s going to work, what the processes are going to be,” says Marketing Director **Tom Stanley**.

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Wizard	Burlingham	B	S
Yorktown III	Lofts	B	S
<i>Turf-Type Tall Fescue</i>			
Adventure II	Turf Merchants	B	L
Apache II	Turf-Seed	B	L
Avanti	Turf Merchants	A	L
Aztec II	Turf Merchants	B	L
Bonsai	Turf Merchants	B	L
Bonsai 2000	Turf Merchants	C	H
Coronado	Turf-Seed	B	L
Dixie Green	International Seed	B	L
Duster	Pennington	B	NR
Falcon II	Burlingham	B	L
Finelawn Petite	Fine Lawn	B	L
Finelawn 5GL	Fine Lawn	C	L
Finelawn 88	Fine Lawn	B	L
Houndog	International Seed	B	L
Houndog 5	International Seed	B	L
Marksman	Burlingham	B	L
Masterpiece	Lebanon	B	S
Millennium	Turf Merchants	B	H
Picasso	Lebanon	C	S
Pride	International Seed	B	L
Rebel Jr.	Lofts	B	L
Rebel Sentry.	Lofts	C	L
Rebel III	Lofts	B	L
Rebel 2000	Lofts	C	L
Regiment	Advanta	B	S
Rembrandt	Lebanon	C	S
Renegade	Burlingham	B	L



CULTIVAR	MARKETER	AVAILABILITY	PRICE
Southern Choice	Burlingham	B	L
SR 8200	Seed Research	B	L
SR 8210	Seed Research	B	L
SR 8500	Seed Research	C	L
Starlet	Burlingham	B	L
Tarheel	Turf-Seed	C	S
Tulsa	Advanta	B	S
Virtue	Pennington	B	NR
<b>Fine Fescues</b>			
Anvil hard	International Seed	B	S
Attila hard	Turf Merchants	A	L
Azure	Lofts	C	S
Cindy creeping	International Seed	B	S
Culumbra chewings	Fine Lawn	C	S
Dawson	Advanta	C	S
Discovery hard	Turf-Seed	C	S
Eco chewings	Burlingham	C	S
Eureka hard	Fine Lawn/Int'l Seed	B/C	S
Flyer creeping	Fine Lawn	B	S
Cindy red	International Seeds	B	L
Claudia creeping	Ampac	C	S
Dawson	Advanta	C	H
Defiance hard	Lesco	B	S
Discovery hard	Turf-Seed	C	H
Enjoy chewings	International Seeds	C	S
Eureka hard	Fine Lawn Research	C	H
Flyer creeping red	Fine Lawn Research	B	H
Jamestown II	Lofts	B	S
K-2 chewings	Burlingham	B	S
Longfellow chewings	International Seed	B	S
Marker creeping	International Seed	B	S
Pathfinder creeping	Lebanon	C	NR
Oxford hard	Lebanon	C	NR
Quatro sheep	International Seed	B	L
Raymond	Advanta	B	S
Reliant II	Lofts	C	S
Scaldis	Advanta	C	H
Shademaster II	Turf-Seed	C	S
SR 3100 hard	Seed Research	L	S
SR 3200 blue	Seed Research	B	S
SR 5100 chewings	Seed Research	B	S
Tiffany chewings	Turf-Seed	A	S
TMI 3CE chewings	Turf Merchants	B	S
Vernon hard	Burlingham	B	S
Warwick hard	Turf Merchants	A	L
<b>Bentgrass</b>			
Backspin	Turf Merchants	B	L
Century	Burlingham	C	S
CEO	International Seed	B	S
Cobra	International Seed	C	S
Crenshaw	Lofts	A	S
Imperial	Burlingham	B	S
L-93	Lofts	B	S
Lopez	Fine Lawn	A	L
Penncross	Tee-2-Green	A	S

"Turf-Seed Europe will continue with those companies and develop distribution into countries where we don't have distribution: Greece; the Balkans; Eastern European countries," says Stanley.

Varieties sold through Turf-Seed Europe will be the new varieties developed by sister company Pure Seed Testing, Inc. The move would expand the companies current European presence.

No research facilities are planned at this point.

The ban on open field burning in the Columbia Basin has yet to make its full impact on seed prices. Growers used to charge a meager 5 cents/acre to burn fields. Now, the labor involved with bailing, raking and chuting will add \$70-90/acre to the price of seed, says **Myron Lightbody** of Jacklin Seed Co., to say nothing of the quality issue that results from ineffective field cleaning. **LM**

CULTIVAR	MARKETER	AVAILABILITY	PRICE
Penneagle	Tee-2-Green	C	S
PennLinks	Tee-2-Green	B	S
Penn A-1	Tee-2-Green	B	S
Penn A-2	Tee-2-Green	B	S
Penn A-4	Tee-2-Green	B	S
Penn G-1	Tee-2-Green	B	S
Penn G-6	Tee-2-Green	B	S
Seaside II	Tee-2-Green	B	S
Southshore	Lofts	B	S
SR 1019	Seed Research	B	S
SR 1020	Seed Research	B	S
SR 1119	Seed Research	B	S
Tendenz	Fine Lawn	C	S
Tiger	International Seed	B	S
Tracenta	Advanta	C	H
Trueline	Turf Merchants	B	L
Viper	International Seed	B	L
<b>Other Seeded Cultivars</b>			
Buffalo Pals	Pennington	B	NR
Cypress poa triv	Turf Merchants	A	L
Del Sol bermuda	Turf Merchants	B	H
Froghair rye	Turf Merchants	B	S
Laser poa triv	Lofts	B	S
Mirage bermuda	International Seed	B	L
Primo bermuda	Seed Research	B	S
Pyramid bermuda	International Seed	B	L
OKS 91-11 bermuda	Seed Research	C	S
Sabre II poa triv	International Seed	B	S
Sahara	Pennington	B	NR
Salty alkaligrass	Lofts	C	S
Savannah bermuda	Turf-Seed	B	S
SR 6000 deschampsia	Seed Research	C	S
Stardust poa triv	Turf merchants	A	L
Sultan	Pennington	C	NR
Supina bluegrass	Fine Lawn	B	S
Sydney bermuda	Pennington	C	NR
Yuma	Pennington	B	NR