



The Author in his Laboratory

# Seeds For Golf Courses

An expert's analysis of grass seeds which produce fine golf course turf. Origin and characteristics of the several varieties most generally sold by seed merchants

By E. E. PATTISON, Director

International Seed Testing Laboratories, No. 11 Park Place, New York City  
Formerly Seed Analyst U. S. Department of Agriculture, Washington, D. C.

## Article V—Fescues and Rye Grasses

**I**N this genus *Festuca* we find species both wild and tame but the following are the ones of interest to our readers.

*Festuca Rubra*—Red Fescue

*Festuca Rubra* Var. *Fallax*—N. Z. Chewings Fescue

*Festuca Ovina*—Sheeps Fescue

*Festuca Ovina* Var. *Duriuscula*—Hard Fescue

*Festuca Tenuifolia*—Fine Leaved Fescue

*Festuca Heterophylla*—Various Leaved Fescue

*Festuca Elatior Pratensis*—Meadow Fescue

### *Red Fescue*

**T**HE first two of the above enumerated species are of most importance to the industry of golf. The European red fescue and the New Zealand chewings fescue are considered by our botanists to be of the same species the slight difference in the plant being only varietal.

There is a great deal more Chewings used than European red fescue for several reasons the first of which is that there is more Chewings fescue produced.

Red fescue chewings variety is produced only in New Zealand. In its native country there is some doubt as to it being *Festuca rubra*. Those who know its history from the start claim that it is a variety of hard fescue. The grandson of the dealer who imported the first fescue into the southern islands and from which the present chewings developed claims that the original seed was hard fescue from Scotland. This history does not agree with the history given by Piper but the writer is inclined to believe that it is true. But as our botanists determine the plant as red fescue we have and must continue to think of it as such.

There are very few northern courses that have not used red fescue in some way. After bent it is considered by some the most desirable grass for northern putting greens. Personally the writer is very much opposed to the use of red fescue on green, separately or in a mixture, but most every one approves of its use in fairway mixture and in a previous article we suggested a fairway formula, in which red fescue was one of the principal component parts.

Red fescue does well on almost any type of soil but best on the sandy loam types.

### *European Fescue Creeps*

**T**HE plant has the characteristic stiff leaves which are dark blue green in color. The plant of the true European red fescue has creeping habits and a single plant is known to occupy an area of six feet in diameter by spreading thru its slender root stocks. The New Zealand variety is not known to creep but its branches are extra vaginal so that it is not unusual to find a single plant with a diameter of ten to twelve inches.

Another reason why the use of chewings is more in favor than the use of European red fescue is that chewings is always pure in strain where as the European is most always mixed with sheeps. In fact it has been a common practice on the part of the European shipper to ship the heavier weight sheeps fescue for red fescue. While there are distinguishing seed characteristics by which the seeds can be determined the process of determining them is extremely difficult and only a few analysts are qualified to make the determination. Thus a great deal of sheeps fescue pass thru the customary commercial channels as red fescue.

The seeds of chewings fescue and of Euro-

pean red fescue are slightly different in color and while it is extremely difficult and at times impossible to distinguish individual seeds yet to the trained eye the seed en masse is quite different. Then too the analyst can easily determine the origin because the weeds present in New Zealand chewings are quite different from those found in seed of European origin.

The wholesale prices this year have been about the same for seed of both origins. When there has been a difference the European red fescue has been cheaper.

The chewings fescue seed is heavier per bushel weight due to the absence of empty attached glumes and runs higher in technical purity and usually lower in weed seed contents. The average purity of chewings fescue is 99% while the average purity of European red is but 95%.

### Germination Improving

**T**HERE is a well founded prejudice against chewings fescue on the grounds of poor germination. During the last fifteen years there has been more seed used with a germination under 50% than with a germination over 50%. Good fescue should have a germination of 85% or better. The poor germination of chewings is directly traceable to the long and hot ocean journey. A great deal of work has been done to overcome the damage and it is gratifying to report that the shipments of the last two years have stood the transportation much better.

For fall planting it is possible to get seed of the new crop of chewings. There is now available new seed which left New Zealand in June and tests on some of the arrivals show the quality exceptionally good.

The germination of European red fescue is most always satisfactory and averages around 85%. For a period of over a year it keeps a constant germination: for example seed of 1927 crop which arrived last November still holds the same high and strong sprout germination as it did on arrival.

It would not be surprising next Spring to find that the imports of 1928 crop of chewings show a rapid decline in germination. Seed that now tests 85% or better in germination may next March show a weak sprout germination of but 30%. If there is one seed that should be perfectly tested before using that seed is chewings fescue.

### Sheeps and Hard Fescue

**V**ERY little space will be given to those and the balance of the species. We purposely devoted most of the article to that species which was of the most importance.

**THE PERFECT GOLF COURSE SPRINKLER**  
COVERS GREATER AREA THAN ANY OTHER TYPE

**GOLF KING No. 6**

The sprinkler that Efficiency, Economy and sound business judgment demands. It has the slowest motion and is positive in action on fluctuating pressure, in wind or on hillside and is without a single whirling or fluttering part to get broken off.

Price on roller stand  $\frac{3}{4}$ " conn. \$10.00. 1" conn. \$15.00. Larger sizes  $1\frac{1}{4}$ " or  $1\frac{1}{2}$ " conn. \$20.00.

The only sprinkler that can be used on HOSELESS SYSTEM with SNAP VALVES without "drowning" the attendant. Write us for full literature on SNAP VALVES which eliminate all control valves, all hose, all service leads and more than 50% of irrigating cost.

**BUCKNER MANUFACTURING CO.**  
FRESNO, CALIFORNIA

Sheeps or hard fescue should never be used for anything but roughs. It gives a bunchy sward and that means objectionable lies. The source of the entire seed supply is Europe.

Seeds of sheep and hard fescue are at present not distinguishable and when buying hard the chances are 100 to 1 that you will get sheeps. As said above the heavier weight sheeps fescue is palmed off for European red therefore that which is sold for sheeps is lighter per bushel weight and lower in purity. The average purity of sheeps fescue is between 85% and 90%. It is always much cheaper than European red fescue.

### Fine Leaved and Various Leaved Fescue

**T**HESE are both fine leaved types of fescue. Neither is much in use because neither possess characteristics superior to red fescue and the prices are sometimes twice as high. Formerly there was considerable seeded imported from Europe but now the imports are extremely light.

The seeds are quite different from those of other fescues the principal difference being their smaller size.

# The Peerless Mower Sharpener

**Saves Time and Money for Any Club**

The Peerless Mower Sharpener grinds all makes of power, horse and hand mowers in 20 to 30 minutes, with razor-like edges, giving any desired clearance or bevel. Mowers run easier, less power required, hence more speed. One owner reports they have dispensed with one man. Another writes: "The Peerless Sharpener saves us \$700 to \$800 annually."



Write for catalog and list of users

The Fate-Root-Heath Co. 825 Bell St. Plev-orth O.

## Meadow Fescue

IF IT were not for the fact that thru accident or thru intentional adulteration the clubs sometimes get meadow fescue we would not mention this article as the species has no place on the course. It is strictly a field or pasture grass. The seed is much larger than the seeds of other fescues and is easily distinguished.

Meadow fescue has been used as an adulterant of rye grass when the price has been cheaper. Just at this writing the price is quite a little higher so if any adulteration was attempted it would be the other way. Meadow fescue has been used by some questionable dealers as a substitute for red and chewings. Just recently we ran across a fairway mixture which contained 25% meadow fescue. The club had ordered a mixture containing that amount of chewings. The price of meadow fescue at that time was 15 cents—the price of chewings 35 cents per lb.

## Rye Grass

IN THIS genus we find the following species that are of interest:

*Lolium Perenne*—English or Perennial Rye Grass

*Lolium Perenne Var. Pacey*—Pacey's Rye Grass

*Lolium Italicum*—Italian Rye Grass

THESE are coarse grasses and have but little use on the Northern courses. In the south, Italian rye grass is looked upon as a winter annual and is sown on Bermuda grass turf. It is also used on the Southern putting greens. For any purpose where rye grass is to be used one species is as good as another so the purchaser should therefore choose the least expensive, quality of course considered.

In the previous years our sources of supply were the British Isles, New Zealand and Denmark but during recent years quite a rye grass

industry has developed in our own state of Oregon. This domestic seed is a mixture of English and Italian. The price has always been below that of imported seed. The imported seed is generally cleaner as a great deal of the domestic seed runs with a heavy weed seed contents especially tarweed and rat's tail fescue but where clean domestic seed can be obtained there is no use paying a premium for the imported.

Pacey's rye grass is nothing but the small seeds of English rye. It brings a premium because of its small size.

## Mid-West Meets at Bryn Mawr

FORTY-FIVE greenkeepers of the district were guests of genial greenkeeper Jim Bedoni August 6 at Bryn Mawr Country Club.

Many compliments were paid Mr. Bedoni upon the results which he has achieved during his seven years' sojourn at this course which was laid out and constructed by Langford and Moreau Ltd. The flat piece of real estate was moulded into a beautiful rolling terrain.

The original greens sowing was to fescue and bent. During the past few years the grass is being changed to vegetative bent by plugging. The progress is slow but the preferred bent will eventually cover the greens.

Following a luncheon served thru the generosity of the club, President John MacGregor called a business meeting. The first topic to be considered was the next Mid-West Greenkeepers' Tournament to be held during September.

The Walker Cup Team Matches were mentioned by Mr. MacGregor, greenkeeper of the Chicago Golf Club at Wheaton, Illinois, where these contests will be held, August 30, September 1 and 2. The suggestion that members of the association should patrol the galleries was approved. It was thought that about sixteen men would be needed for this service each day.

**THE R. H. GOLF WHEEL**  
(For Fordson Tractors)  
*Designed by a Golf Course Mechanic*

Easier Steering



Rounded edges to protect turf

**R. S. HORNER, Mfg. - GENEVA, O.**  
*If your Dealer cannot supply, write direct*