

sewage sludge. The sludge produced at Milwaukee is called "Milorganite" and this brand was used in the tests at New Jersey. Like other organic fertilizers, the nutrients contained are made available to plants upon decomposition and therefore its effect on grass is slow and extended. The test conducted in 1928 indicates that the fertilizer may be the equal of other organic materials, providing the nitrogen may be purchased at the same price.

#### Use of the Experimental Data

THE value of these experiments does not lie in the fact that one treatment has been found better than others, but rather in the fact that some of the various factors which go to make up good or poor systems of fertilization are isolated and may be studied independ-

ently. It is hardly possible to lay down rules for maintenance of golf greens that will apply over a large area having diverse soils and climate; but if the reasons underlying this or that treatment are understood, the systems of management may be varied rationally to suit the conditions at hand.

There are many other soil and plant problems to be solved before turf management advances from the empirical stage to one of reasoned practice. New experiments designed to solve some of these problems have been recently established at the New Jersey Agricultural Experiment Station, and results should be available in the near future. In the meantime, visitors are always welcome on the turf plots and the exchange of ideas will no doubt benefit everybody concerned.

## Seed And Seed Markets

*What the probable prices will be in the spring of 1930*

BY E. E. PATTISON, *Director*  
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NOW that the greenkeeper has finished his fall work, he has ample time to consider his spring needs and as most everyone will require some seed, it seems wise at this time to give information not only in regard to the source of supply, but to the trend of future markets.

The wise greenkeeper will see to it that his seed supplies are ordered from reliable sources and delivered in time for inspection and testing before seeding. He will also see to it that his orders are placed when the markets are favorable. In nine cases out of ten, early buying saves money.

#### The Bents

EVEN though the fall planting was not so large as originally estimated, due to adverse weather conditions, the carryover of bent seed of all origins is extremely small. One or two importers have some of the badly adulterated bent which came out of Germany and Holland last spring and it will undoubtedly be sold during the coming spring.

#### *South German Mixed Bent*

The 1929 crop of European Bent is not so large as the 1928 crop. It is slightly more

weedy and will therefore take more reconditioning before shipment to America. From September 1 when the markets opened, until November 1, there has been an advance of 20c per pound. On the present market, today's price to the golf course for spring delivery should be approximately as follows:

70% pure	\$70.00
80% pure	80.00
90% pure	90.00

#### *New Zealand Colonial Bent or Brown Top*

The 1929 crop of New Zealand Bent was slightly larger and of better quality than the 1928 crop. New Zealand being six months ahead of us in the Northern hemisphere, a great deal of the 1929 crop was used this fall.

In previous years there was some hesitancy on the part of a great many people in using seed of this origin, but from the results of some of the more adventuresome persons, it has been found that seed of this origin (especially that from the Southern Island) is adaptable to our conditions. In many ways, Colonial Bent is the most economical to buy. The seed is usually of higher purity and of lower weed seed content. Whether or not



Colonial Bent greens will last as well as South German Mixed Bent, remains to be seen. We have heard the expression of several greenkeepers to the effect that in their opinion, Colonial Bent is more Brown Patch resistant. The golf club should pay for purchases of 99% quality made now for spring delivery approximately \$65.00 per 100 lbs.

#### Pacific Coast Bent

In talking to one of our official agronomists who has recently made a complete inspection and survey of the Pacific producing areas, one gathered the impression that the yield of the 1929 crop is somewhat larger than the 1928 crop. As everyone knows, the Pacific Coast produces two distinct species and three distinct varieties of one species, as follows:

1. SEASIDE BENT—*Agrostis maritima*.

Part of this production is distributed under a registered trade name. Part is sold by commercial reconditioners under the state inspection quarantine.

2. ASTORIA BENT—*Agrostis vulgaris* var. *astoriana*.

This is a variety of the same species to which Colonial Rhode Island, Puget Sound and Prince Edward Island Bent belong.

3. HIGHLAND CROWN OREGON BENT—*Agrostis vulgaris*.

This is the same species as Astoria Bent but is not the same variety.

4. PUGET SOUND BENT—*Agrostis vulgaris*.

This is the same species as the above mentioned bent.

#### Prince Edward Island Bent—*Agrostis vulgaris*

In the U. S. A. this seed is identified botanically as *Agrostis vulgaris*. It usually comes into this country tagged *Agrostis Tenuis* as this name is the one used by the Canadian Department of Agriculture. It is understood that the production was at least as large as elsewhere.

#### Velvet Bent

There is such a small commercial quantity of velvet bent that very little space need be given. Part of the crop of Canada was a complete failure. This last fall there have been several greens planted vegetatively to velvet and the results so far have been most gratifying.

#### Kentucky Blue Grass

THE 1929 crop was so unusually large in both the Kentucky and Missouri producing areas that the prices for Kentucky Blue are appreciably under those which prevailed at this time last year. Present prices for spring delivery should run about as follows:

30 lbs. to the bushel 95/98 pure	\$32.00
24 lbs. to the bushel 92/95 pure	28.00
21 lbs. to the bushel 85/90 pure	26.00
19 lbs. to the bushel 75/80 pure	24.00

The best advised authorities of course advocate only the first two qualities for golf purposes. In view of the present low markets, it can safely be said that the tendency will be upward and it would therefore seem wise to make reservations now.

From samples already tested, it seems as if the Missouri seed was of slightly better quality than the Kentucky seed. The low weed content of seed grown in Missouri is a principal item which favors the use of this seed.

#### Red Top

THE 1929 crop of red top is appreciably smaller and of lower quality than the 1928 crop. It is safe to say that it was only two-thirds as large. This naturally has resulted in a higher market. It is understood that some of the most reliable seed companies are making reservations for the golf courses for spring delivery on the following bases:

98% pure	\$25.00
96% pure	23.00
92% pure	21.00
90% pure	19.00 per 100 lbs.

A great many of the better advised authorities believe that prices next spring will be higher.

#### The Fescues

RED FESCUE: As generally known, most of the red fescue used by golf courses comes from New Zealand. It is gratifying to know that the 1929 crop from this origin, which has been coming to our markets since last July, has reached here with a satisfactory germination and it is believed that this fescue will have a satisfactory germination this spring. A warning, however, must be given because there are a great many wholesalers who

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#### NATIONALLY KNOWN MANUFACTURING AND MERCHANDISING

firm has an opening for a high class greenskeeper or assistant greenskeeper with out-standing personality to introduce a new specially prepared fertilizer of proven value to golf clubs in the Chicago area. Prefer a man well acquainted with greenskeepers who possesses selling ability and is willing to work hard. Excellent opportunity for the right man and only those possessing the qualifications outlined need apply. In answering give full information, qualifications, selling experience and salary expected. All letters treated confidentially and will be answered.

Address Box 420, The National Greenkeeper, 405 Caxton Bldg., Cleveland, O.

### Seed and Seed Markets

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are carrying over low germinating chewings fescue of the 1928 crop. Today's market for next spring delivery should cost them around \$35.00 per 100 lbs.

Red fescue from Europe will, of course, come in this year the same as in previous years. By this is meant, it will come in with some sheeps and hard fescue. The price of course of the common commercial European red is much lower than chewings. Good quality European fescue should not cost next spring more than \$28.00 per 100 lbs.

#### Sheeps and Hard Fescue

All of our sheeps and hard fescue seed comes from Europe and the crop was expected to be extra large. Prices were very low at the opening of the market but since the supply is not as large as first expected, prices have advanced. They are now at a steady level. Good hard and sheeps fescue for spring delivery should cost not more than \$25.00 per 100 lbs.

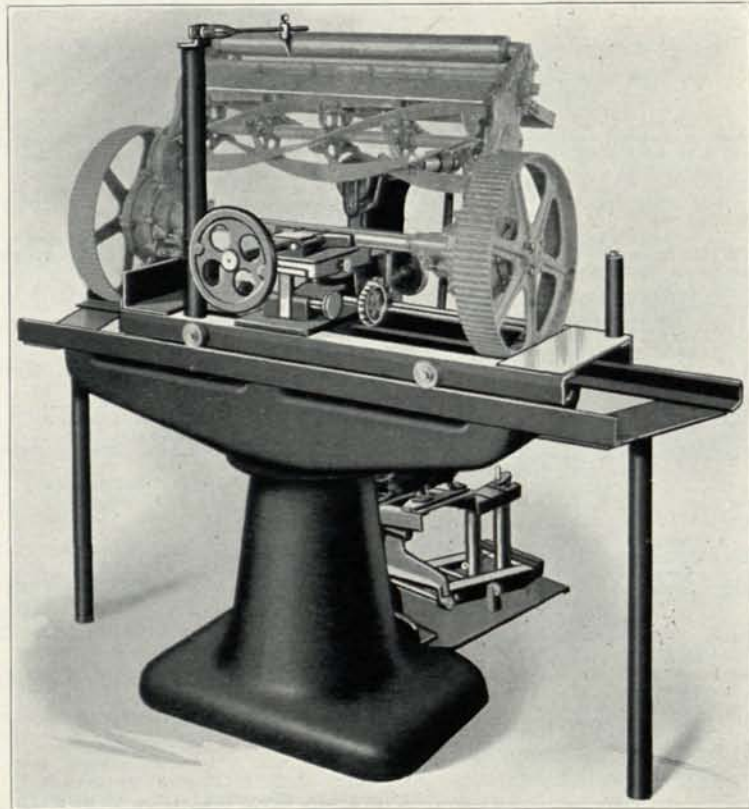
#### Miscellaneous Grasses

Prices for rough stalk and weed meadow grass will be higher this year as the yield is lower. The yield of rye grasses is practically the same as 1928 and prices therefore are at about the same level.

### Milorganite Finds Favor

That Milorganite continues to find increasing favor as a turf fertilizer is indicated by another year of record sales. The Milwaukee Sewerage Commission in a recent letter, reports increased use of Milorganite. Golf courses used 35 per cent more Milorganite this season than last. Its rapid increase in favor is based upon its effectiveness and justifies

## New Hardinge Sharpener



The Hardinge Lawn Mower Sharpener that will be shown at the Louisville Show, has many new features and improvements over the original machine shown at Buffalo.

The vise for holding mower has several inches vertical and horizontal adjustment making the handling of any mower very rapid and accurate. The cast base insures perfect stability. The swiveling motor unit gives any angle desired to the cup grinding wheel. The motor unit has ample vertical adjustment to reach any blade or reel. Adjustments to a fraction of a thousandth are made possible by the vise adjusting screws.—For full particulars write, Henry H. Doty, 1133 Newport Ave., Chicago.

the sales policy inaugurated by the Commission.

The Sewerage Commission recognized the importance of basing fertilizer applications on soil and turf conditions. They pioneered in advocating systematic programs of turf improvement, and maintain a trained and experienced staff to assist customers in devising economical and effective treatments.

Fairways received most of the Milorganite, altho it was used on greens also as a source of slowly available nitrogen. Clubs are beginning to recognize the folly of attempting fairway improvement by seed alone, and realize that good turf will not maintain itself indefinitely.

Milorganite is being used exten-

sively as a carrier for lead arsenate and concentrated fertilizers. Its excellent mechanical condition facilitates absorption of these substances and the resulting mixture can be distributed uniformly. Besides being a carrier, Milorganite also supplies valuable plant food elements.

A more general appreciation of the benefits to be obtained from liberal fertilization of fairways and greens prior to seeding has resulted in a marked increase in the use of Milorganite on new courses. It supplies nitrogen and does not injure the sensitive young seedlings.

Many clubs have placed carload orders for spring delivery, and all signs point to even greater use of Milorganite on golf courses in 1930.