E. I. DU PONT DE NEMOURS & CO., WILMINGTON 98, DEL.-For 1950 Du Pont will have its turf fungicides: Tersan, Du Pont F-531 and Special Semesan which demonstrated high effectiveness in helping course superintendents through a tough year in 1949. Tersan this year was more extensively used than ever before on preventative schedules and performed reliably in curative treatments. Du Pont F-531 was a standard preventative treatment for dollarspot. This fall Tersan was extensively applied as protection against snow mold. Ammate in spray or dry application was widely used for poison ivy, hard-to-kill woody weeds. Du Pont's 2, 4-D weed killers which were much used on golf courses in 1949 will, of course, continue in Du Pont's 1950 line.

DOW CHEMICAL CO., MIDLAND, MICH.-Dow's 1950 line for golf courses will include 2, 4 Dow weed killer, . . rmula 40, an amine-type weed killer, which has found wide acceptance in use on golf courses where low pressure equipment is used. Dow also recommends Esteron 44 and Ester 2-4D for control of weeds and resistant-type weeds and woody growth. Dow also recommends this product for prevention of resprouting in stumps. Dow has a relatively new product, Esteron brush killer, which is a combination of 2-4D and Esteron 245T for control of woody brush and weeds which are resistant to other types of 2-4D. For control of grasses in drainage ditches, roadsides, fence lines, in fact any spot where grass growth is not wanted, a new product which has been proven very successful in extensive tests throughout the country is Dow Sodium TCA 90%. Dowklor "Chlordane Formulations" are widely accepted for control of ants and various insects attacking golf course greens.

IDEAL POWER LAWN MOWER CO., Springfield, Mass.—Ideal Bulldog 7, 5 and 3-gang mowers and power greensmower have no major changes in 1950 models. Refinements and improvements in details will be evident in maintaining the reputation of the equipment for performance and durability.

OLD ORCHARD TURF NURSERIES, Madison, Wis.—With nurseries now at Richmond, Va., Slocum, R.I. and Farmington, Ia., as well as the main Old Orchard nursery at Madison, Wis., the R. R. Bond organization is able to supply Old Orchard C52, Arlington C1, Cohansey C7 and Congressional C19 stolons true to strain, unmixed with other bents or grasses and with every shipment carrying state inspection certificate.

AMERICAN LIQUID FERTILIZER CO., INC., Marietta, O.—Reports an excellent year's business and testimony of very satisfactory results with Liqua-Vita, with 6-9-7 formula, and Liqua-Vita Turf Special, 12-8-4. The makers say there is no danger of burning with Liqua-Vita, it is clean and easy to use, and can be applied with the fungicide, thus saving labor. Liqua-Vita, being a plant food with 14 elements available, helps maintain greens in good condition throughout the hot summer months.

### Spider Mite Damage Stopped On Bent Grass Green

Spider mites are pests of world-wide distribution. The common red spider, the cyclamen mite, the clover mite, the chicken mite, the bulb mite, etc., are examples of this tiny insect. Most of them feed on tender plant tissue. Some feed on the blood of fowl; others cause various types of itch and mange in the skin of mammals and certain birds. One family is not parasitic—it lives on dried or decaying organic matter.

Tiny light spots are produced on most plants by the feeding spider mites. They commonly feed on the underside of the leaf and abstract plant juices with their tiny sucking mouth parts. They thrive in hot, dry weather. A generation requires about a month for development.

During early May Lester Verhalen noticed injury to the grass on the practice green at the Brynwood Country Club. There was an irregular reddish colored



Spider mite damage to bent grass on practice green shows mites active along irregular band running diagonally across green. Bluish cast indicating wilt shows up to the right back of advancing reddish band and faither back grass is turning brown.

streak, several inches wide, diagonally across the green. The grass on one side was of the characteristic bluish color indicating wilt, just back of the advancing reddish band. Farther back the grass was brown and leaf blades were withered

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and shrivelled. The clover patches were not affected. Examination with a small hand lense disclosed the presence of small spider mites in large numbers concentrated in the reddish band. Specimens were collected and submitted to the Milwaukee Museum for identification. Authorities there agreed at once that the insect was a spider mite, but were not sure of the exact species. Other specimens were sent to Professor John C. Schread of the Connecticut Station because Dr. Philip Garman there is an expert in this phrase of entomology. They reported the specimens to be Bryobia praetiosa (clover mites), despite the fact that injury was confined to the Washington bent grass.

The weather was dry and warm. There had been no rain since snow disappeared and the green had not been watered.

The green of approximately 10,000 square feet was sprayed with Chlordane on Saturday afternoon. Three pounds of 50 per cent wettable powder was used on the entire green. No mites were found the next morning. Apparently they were stopped in their tracks. The line was stationary after the green was sprayed.

### Famed Lloyd Range Closes

Lloyd Driving Range, opened Sept. 30, 1932, five minutes from downtown Portland, Ore., closed Sept. 20, 1949. Property to be used for building. The Lloyd range and short course probably involved by far the biggest investment ever made in privately-owned golf practice facilities. The 240 yd. long fence was regarded as the highest in the world (180 ft.). It cost \$10,000. The range was sheltered for allweather play. The plant was under the management of Joe Mozel who developed in it, and primarily for it, the first completely automatic tees. More than 18 million balls were hit off these automatic tees during the progress of the Mozel automatic tee to commercially operative success. An electric meter recording system with recorders in the range office was among the Mozel inventions which had the Lloyd range operating with such extensive use of balls and income protection that carrying cost of the entire expensive plant was handled. Mozel's performance as operating director of this costly installation showed how a stiff investment on very expensive property could be justified.

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