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Bulletin S-61 gives all the facts on Royer’s mechanically fed shredders. Send for a copy. It pictures and describes 24 models, with capacities up to 150 cu. yds. an hr.
John A. Weall (l) of Ontario Agricultural College gave chalk talk on landscaping, and Jesse A. DeFrance, now a Scott's seed consultant, discussed handling of chemicals on education program.

Grass roots turfmen, who spoke on practical aspects of growing grass, included (from l) Andrew Salerno, George Lanphear, Andy Bertoni and Art Twombley. Twombley was the leader of this panel.

letin boards and verbal explanations,” said Shields, “should be widely used in informing members why it is necessary to aerate and apply topdressing and why poa annua probably will go out in the heat of late summer.” So that the supt. isn’t perpetually kept on the defensive, Bob suggested that it isn’t a bad idea for him to call the attention of the members to improvements that have been made, and to the beauty of the course when it is in full bloom.

**Stepson Complex**

John Henry’s paper (read by Fred Grau) also emphasized the value of publicity. “Since we’re located so far from the clubhouse and the center of activity around a club,” said Henry, “we’ve developed a kind of stepson complex. There isn’t any reason why we shouldn’t occupy as much of the limelight as the pro or the club manager because certainly our job is just as important as theirs.”

Henry went on to say that many of the necessary operations of the maintenance dept. such as spraying, aerating and even mowing are poorly timed so far as most members are concerned. The only way to counteract the “Why do they have to do that now?” attitude of many golfers is to inform them in advance of the operations that must be carried out, and why they must be performed at certain times. “It isn’t a bad idea,” Henry concluded, “to let the players know that greens can be just as temperamental as some of them and will quickly fade out if properly timed steps aren’t taken to prevent this.”

**Public Speaking — It’s Wonderful!**

Both Fred Lightfoot and R. N. Elliott-Bateman were introduced to the program to give the audience a break from the constant drumming on the turf theme and to prove that a course in public speaking can bring wondrous things. Lightfoot, a Carnegie prodigy, and Elliott-Bateman, a Toastmasters phenomenon, didn’t disappoint their listeners.

Lightfoot, dwelling on the promotion possibilities of speaking effectively, told several success stories of truck drivers, bookkeepers, etc., who moved quickly to the vicinity of the front office when they cultivated the art of public speaking. He left the audience on the note that technical knowledge takes a man only about one-fifth of the way down the path of success, and that the rest of the journey is covered by his ability to express himself. Whether club officials are aware of this isn’t known.

Elliott-Bateman, a onetime British subaltern with accent to match, made one point that a supt. or anyone else would do well to keep in mind. “There’s only one thing that prevents a person from becoming a fluent speaker,” he said, “and that is the mind. You could prepare the finest paper ever written on turf management, but when it came time to deliver it, you could stumble all over the auditorium if you didn’t have the self-confidence to put it across. Self-confidence in a speaker,” Elliott-Bateman added, “is a condition of the mind that is only acquired through exposing yourself to audiences.”

**The Detached View**

Elmer Border, for many years a supt. and now a chemical salesman, pointed out that he now is in a position to take a more detached view of the supt’s strong points and shortcomings. The latter, he said, become more evident to him each day and, for the most part, involve the inability of most supts. to sell themselves and their programs to the clubs for which they work. Whether it is because of poor preparation or diffidence, Border didn’t say, but he did emphasize that it is hurt-
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ing many fellows from both a budget and salary standpoint. Elmer’s panacea: “Rid yourself of the notion that you’re a country club farmer and think of yourself as a manager. If, to do this, it takes more education, especially along business lines, there is absolutely no reason why you can’t acquire it.”

Living Example

Jim Brandt, the handsome turfmaster from Danville, Ill., was presented as a living example of what a series of sessions at the Toastmasters’ Club can do for a man. Brandt conceded that he was something of an introvert, interested only in keeping the grass green and the rough mowed at the proper height, when a member at his club suggested that his abilities would receive proper recognition if he were more outgoing. So, Jim enrolled with the local oratorical society and the self-confidence he gained gave him a new outlook on life and his job. His most striking observation: “A supt., more often than most people, finds himself in the position where he has to explain himself. If he has valid reasons for doing certain things, but can’t explain them to his members, he’s accused of being indifferent or inefficient. It’s here that self-confidence and his ability to express himself carry him over the rough spots.”

Third Session

Researchers Discuss Chemicals, Cautions

The Tuesday afternoon meeting was largely devoted to technical discussions in which the following speakers were featured: J. A. DeFrance, consultant, O. M. Scott Co.; Richard R. Davis, Wooster (O.) Agricultural Exp. Station; Joseph M. Duich, agronomist, Pennsylvania State U; William H. Daniel, agronomist, Purdue U.; and Gene C. Nutter, executive dir., GCSA.

After tracing the evolution of fertilizers, fungicides and herbicides and bringing the supts. up to date on the latest developments in these chemicals, J. A. DeFrance warned supts. to practice certain precautions in the handling, buying, application and storage of some of the products they use. These include:
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Materials such as chlordane and Aldrin and organic phosphorus compounds, such as Parathion, may be absorbed through the skin or by breathing; mercurials should be handled with care for the same reasons;

**Warns of High-Pressure Salesmen**

Beware the miracle controls that haven’t been researched and are peddled by high-pressure salesmen out to make a quick buck;

The higher the grass the stronger the concentration of a chemical that it can take. By the same reasoning, if the soil is moist and weeds and grass are growing fairly vigorously, herbicides are most effective;

Better results probably are obtained if many chemicals are sprayed on in the afternoon rather than the morning. This is to avoid overexposure to the sun. It also has been observed that most applications give better results if made when the temp. is below 80.

**Nature vs. Superintendent**

After showing slides and discussing the effects of clipping on root growth, Dick Davis of Wooster concluded that it is at least a small miracle that supt.s can keep turf on their courses in view of the frequency of mowing and the low height at which grass is cut. Observations of Kentucky Blue, Merion, Astoria bent and some fescue have led to the conclusion that root growth is about directly proportional to the height of cut. Surprisingly, excess nitrogen seems to greatly retard root growth, as Davis’ slides showed.

The Wooster agronomist showed comparative slides where with the grass cut at ¼ ins., 91 weeds were counted in one 10 ft. sq. plot of Kentucky Blue as compared to only eight weeds where the grass was cut at 2 ins. There was, of course, great contrast in the root development in these plots. Crabgrass observations approximated the weed infestation picture.

Davis said that the greatest boon to root development apparently is the range of temperatures experienced in the spring months, and that the second greatest influence possibly is the compaction condition of the soil.

**Fairweather Friends**

Joe Duich, the young Pennsylvania agronomist, declared that many persons in his profession are somewhat resentful of the golf course people because they only lend their support when the researchers are coming up with something new. “We’re put in the position,” said Joe, “where we ‘just have to say something’ about new strains when we invite supt.s to see our test plots. The upshot is,” he continued, “that the demand for quick results is causing a great deal of needless duplication in the field of turf research.”

Other points made by Duich:

Back in 1921 it was concluded that vegetative and creeping bents are better for greens than seeded and non-creeping varieties. Nothing since has developed to change this thinking;

Many courses have taken the inexpensive way out by seeding rather than stolonizing greens and then wonder why their putting surfaces don’t compare with those at clubs where stolons have been used;

Fairways continue to be the ‘orphans’ of the golf course. The big trouble seems to be that there just hasn’t been a grass developed that can stand up to the kind.
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<thead>
<tr>
<th>ANALYSIS</th>
<th>PRICE PER POUND IN 50 LB. DRUMS (If 25 lb. bags are specified, add $1/2c per lb.)</th>
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<tr>
<td></td>
<td>5 Lbs.</td>
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<td>9-45-15 START-LIZER</td>
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<tr>
<td>15-30-15 PLANT-LIZER</td>
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<tr>
<td>24-12-12 LAWN-LIZER</td>
<td>.31</td>
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<tr>
<td>30-10-10 AZALEA ACID-50</td>
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<td>12-24-24</td>
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<td>CHELATED CONCENTRATE</td>
<td>$0.75</td>
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of management that is demanded. Merion can't be written off, even though it has been found wanting. Of the fairway bents, Colonial, because of its great density and resistance to disease, may be the answer in the cool season belt. In the middle belt, U-3 and Meyer zoysia appear to be providing many of the answers, but they must be observed further before a final decision can be made.

**Can't be Analyzed**

Bill Daniel of Purdue was inserted into the program proceedings as a last minute replacement and spoke without benefit of any prepared notes. The Purdue agronomist said he is somewhat amazed at the number of crabgrass killers on the market, but for the sake of the gullible, including some supt.s., he hopes all of them work. "If they don't," he added, "America may become absolutely barren within the next decade. I'm sure some of those formulations defy chemical analysis."

In the same vein, Daniel warned against riding off in 20 different directions in experimenting with other chemicals and fertilizers. He recommended using unfamiliar products on a small scale, one at a time, and observing their reactions before going overboard and saturating the entire course with them. "Many a supt.'s job," Bill wryly remarked, "has ben lost for less than this."

**The Well-Rounded Man**

Speaking on the topic, "How Far Can We See?" Gene C. Nutter, executive dir. of the GCSA, reiterated what had been said earlier about the supt. concentrating on becoming a better business manager, but in so doing, not to neglect the technical side of his occupation. What he should strive for, Nutter declared, is to become a well-rounded individual, proficient in handling all of the score or so of duties he is called upon to perform. Nutter added that, as far as he can see, the supt. is beginning to measure up more and more as a businessman, and that his next goal should be to improve his member and public relations.

A significant point made by Nutter: If five per cent of the veteran supt.s. retire every year, and if as many courses continue to be built annually as in the last decade, there will be a demand for 350 new greenmasters every year. Today, only about 50 young men are graduating from turf management school each year. How can the situation be remedied? Through more scholarship grants, more winter school courses and more in-training programs sponsored by clubs.

**Fourth Session**

**Faulty Focusing Foils Film Story**

The Wednesday morning program was inaugurated with the showing of a Milwaukee Sewerage Commission movie. Next came a well received "chalkie-talkie" dissertation on club landscaping by John A. Weall of Ontario Agriculture College. He was followed by John F. Cormon of Cor-
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nell University and Ralph E. Engel of Rutgers University.

The Sewerage Commission color film, narrated by Charles G. Wilson, with background music by Walt Disney, could be given no more than one-star rating because of projection trouble. The local operator didn't seem to understand the mechanism and lost both the voice and the music and occasionally, the picture. What undoubtedly would have turned out to be an excellent description of maintenance operations and installations at Woodhill in Minneapolis, Medinah, near Chicago, LaChute in Canada, an Idaho Falls course and other sites, simply was mangled by inept projection. There was a near repeat performance the following day by the same operator. He managed to get the machine in focus but couldn't find the cup, when it came to inserting the sound plug.

**Landscaping with Art**

Following the debacle of the projection machine, order was restored by artistic John Weall who used colored chalk and a blackboard in describing how a rather bleak landscape can be made to breathe when a person knows where to plant trees, shrubs and flowers. Weall offered the following tips: Make sure that the trees and shrubs that are planted are matched to the soil; Slow growing hedges such as privet and cedar, trimmed so that they are wider at the bottom, give the best long term results; Don't smother anything with vines, but spread them out; Perennials should be planted in large beds. Care should be taken to plant flowers that bloom in early summer, others in mid-summer, and still others that bloom in the fall so that at no time during the warm season does the bed have that dead-stem look.

**Fertilizer Economics**

In his talk on practical fertilization, John Cormman discussed the economics as well as the effects of applying various fertilizers. Contrasting costs, he stated that the soluble type is cheaper than insoluble so far as initial outlay is concerned, but the latter is less expensive to apply. It also has an advantage, though slight, where leaching is considered and it can be applied with a little less caution than the soluble material because it is less apt to burn turf. So far as nutrients are concerned, one is probably no better than the other.

The Cornell agronomist said that supts. should pay more attention to soil and climatic factors in determining how much and how often turf should be fertilized, but he didn't discount the “eyeball” test, saying that this, of course, is something that has to be acquired through experience. As for phosphorus and potash, Cormman didn't recommend any specific dosages, saying that care should be taken that there is no deficiency of these nutrients. In the final analysis, however, Cormman said that turf response depends largely on the amount of nitrogen applied.

**Old Water Argument**

The argument as to whether water is a friend or foe was discussed as vehemently 30 years ago as it is today, according to Ralph Engel, Rutgers agronomist. He added that he has seen enough of prolonged arid spells that have resulted in serious loss of fairway grasses in New Jersey to declare himself on the side of a good irrigation system. “It can be a supt's best friend,” said Engel, “if it is used with propriety.”

Warning against the overuse of water, Engel declared that it tears down the soil's structure, leading to serious compaction and thereby poor air and nutrient circulation. “Samples show,” explained the Rutgers man, “that it is much better to have 30 per cent than 80 per cent saturation.”

For best results in watering, Engel made these suggestions:

Proper timing depends largely on the appearance of the grass along with soil moisture, things that can be determined through the use of a little judgment;

There should be a happy balance between the use of water and fertilizer; too much of the latter only calls for pouring (Continued on page 108)