# My Work With Agri-Systems, Inc.

by James L. Holmes

Indeed, it was great to hear from Dick Trevarthan and be asked to submit a "what're you up to" article for the **Bull Sheet**. The one big miss since leaving Chicago is the many friends compatriots with which I no longer have the privilege of regular association. I received an invitation from Adolph to attend his superlative Christmas party. But, the distance to travel home made it impossible, this year. However, this year only, I hope.

Since terminating with the Green Section, March 1, 1969, I have been doing precisely what I have always dreamed of doing. Not the least of which is helping to design and build or rebuild golf courses. Dr. Marvin Ferguson and I talked about and planned this venture for a number of years. At the outset, it was our opinion that both of us should not resign from the USGA at the same time. Obviously, we are aware that no one is irreplaceable, but, if we left the Green Section simultaneously it would result in a difficult replacement problem for the association. The decision was made that Marv would start Agri-Systems, then one year later I would join him—with sufficient termination notice to the USGA.

Since I have been with Dr. Ferguson, the work and challenge has been difficult, hectic, hard, demanding —but rewarding through tremendous satisfaction. We have designed, redesigned and constructed a number of layouts to date. I learned exactly what is mort-morillonite clay at Brae Burn Country Club in Houston, while rebuilding four greens there. Absolutely buried a D-6 dozer in the exact sub-center of a green, and it hadn't rained for three weeks. Shortly after this, the clay began to dry and it couldn't be broken or moved with a case of dynamite. These greens have developed exceptionally well; we think they are good. The golf course superintendent at Brae Burn Country Club is now with Agri-Systems. His name is Bill McCoy and he is adding considerable weight to our staff.

I spent a great deal of the summer in Ft. Smith, Arkansas, rebuilding Hardscrabble Country Club—correction—I helped Tom Baker, the golf course superintendent rebuild it. To give you a little insight on Tom: We were showing a tree removal and trimmer contractor around the course in order to receive his bid for this work. This individual was quite homely with his eyes going off in varying directions, a huge hooked nose and a multitude of scars on his face. After the man left, Tom said, Damn, I sure hope that guy lives longer than I do." My natural retort was, "Why?" At this, Baker replied, "As long as he is alive I'll know I'm not the ugliest man on earth."

Naturally, Hardscrabble greens were built according to Agri-Systems' soils laboratory specifications—exactly. It helps to have your own laboratory for such purposes. When any doubt arises regarding soil or soil properties, namely capillary air-water space versus larger or free air space, compaction relationships or potential, exact internal drainage information, etc., just take it to the laboratory and get the straight dope. We are attempting to culture bentgrass (Penncross) on their greens. All "golf turf" eyes are on us as this has always been considered bermudagrass country. Let me stick my neck out and say we have no fear at all—we will grow the bent. If any of you gents happen to be driving by Ft. Smith, stop in and see our handiwork.

One of our present projects is the design and building of a golf course—real estate development here in Bryan. It is impossible to be aware of all the problems you can get into before starting such a venture. While with the Green Section, I would consult with a superintendent for a period of time, discuss what I would do, then leave the accomplishment to him. Well, the shoe has changed positions. Now, we must "get it done" and it is not always so easy. For example, who would ever suspect that the property where the course is being built gives succor to 8,546,318 snakes of which 8,546,317 are either copperheads, rattlers or cotton-mouth moccasins. (Ed. note: Actually, Jim has seen two small grass snakes)

Of added interest, incentive and challenge, as well as our course design and building, are the many other facets of golf course work and agronomic endeavors with which Agri-Systems is involved. We have been active in legal work primarily to do with soil contamination. We are bound not to discuss all the legal machinations but it suffices to say that difficult, tricky and pesky problems are faced when one must determine the "increase in salt content" of an entire 200 acre field when only a portion of said field has been flooded with brine. Perhaps even the flooded portion will support certain economically sound crops, etc.?

We have become interested in contamination and pollution of all sorts. There is a great, uncultivated field here. Determining degree of pollution is difficult, but it is even more difficult to delimit and legally determine these things. Obviously, in the near future, this is going to be a legal nightmare with a myriad of demanding qualitative and quantitative problems.

Numerous lawn irrigation systems have been installed by Agri-Systems as well as golf course irrigation installations and revamping. This is an exciting, fast changing and expanding field. Here again, the physical installation of a system is perhaps a greater challenge than design. I do not know about the rest of you, but in 1969 we had a hard time obtaining supplies and parts.

Both Marv and I are continuing our consulting endeavors both foreign and domestic. As well as consulting on golf courses in the United States, we have had our services requested in Hong Kong, Venezuela, Mexico and Panama.

We are gradually equipping our laboratory so that we can test most anything in the expanding agricultural and pollution fields. As a result of continuing and accelerated soil testing for golf course purposes, I honestly believe we are the foremost authorities in this sphere-especially soils most suitable for growing putting green turf. We have developed pertinent and concrete facts and data in this demanding area; actual field experience being of equal importance. Our primary interest at present is that of utilizing on-site native soils, or soils readily and economically available in the near vicinity. Naturally, any soil or mixture thereof must meet exacting and determined standards of water and air infiltration, percolation, run-off as well as compaction limitations and the ability to support suitable growth. We have reached the palteau where no one need, indeed should not, "guess" at a soil mixture which "will grow the finest grass anywhere"-boy! have we heard that one! In addition to culture of grass, the superintendent must have greens

which are safely playable immediately following heavy rain or irrigation. When the soil is properly mixed and greens properly built, this is possible.

Another of our endeavors is the preparation of a warm season turf nursery. At present we have planted Tifgreen, Tifdwarf & Tifway bermudagrass, common and Midwest Zoysia. Sod and stolons will be available this year.

Indeed, I am looking forward to the time I am again in the Chicago area with the opportunity to spend some time with my old friends.

# MIDWEST REGIONAL TURF CONFERENCE March 2 - 4, 1970

Theme - SUCCESS IN TURF MANAGEMENT Monday, March 2

#### Modernizing Golf Facilities - Fowler Hall

- 1:15 Modernizing Kenwood M. Mendenhall
- Modernizing Maple Bluff William Eckert
- Servicing Modern Equipment Joe Kelly, 2:20 Jim Whitcomb and mechanic
- 3:00 Break
- 3:20 Success with Zoysia - Ed Boyd
- 3:45 Speedier Golf Robert Buck
- Carts and Golfers Today Lee Record
- 6:00 P.M. Dinner meeting for Board members.

#### Serving Turf Users - Room 218

- 1:15 A quarter Century of Turf Seed
- 1:50 Purdue's Landscape Training Program -F. Lanphear The Landscape Can Reduce Pollution -F. Lanphear
- 2:40 Break
- 3:00 Modern Fertilizers, Mfg. & Distribution
- 3:40 Upgrading Public Turf Areas - Ariel Hunt
- 4:10 Some Roadside Comments - Bob Sheets
- 8:00 Films for You
- 8:45 Annual Meeting

### Tuesday, March 3

- 9:00 Turf in Europe-A Traveler's view -W. H. Daniel
- 9:40 Research progress:-Resins Mel Robey Bluegrasses - Terry Riordan Arsenics - Ray Freeborg Growth Regulation - John Thorne
- Beyond the Classroom Lucy Himelreich 10:40
- 10:55 Ideas Around Universities - Herbert Schaller
- Psysiology and Good Turf Coleman Ward 11:25

# Disease and Its Evidence - Room 214

The Impact of Disease - Don Scott Disease Studies - Clint Hodges Pythium A-Go-Go - Paul Alexander Wet Wilt-Its Principles - Coleman Ward Small groups will regularly go into Room 210 for special microscope study and lab work.

#### Rootzones and Irrigation - Fowler Hall

Ten Ways to Build Turf Areas - W. H. Daniel Sand and Peat Mixture Observations The PURR-WICK system -

Films - Dave Ralston

Panel-Material and Costs - Bill Story, B. Shelton, C. Tadge, G. Lumpkin, M. Boggs

Benar-a Two Wire Irrigation System - Ted Woehrle Uniformity in Irrigation - Gayle Hilton

Athletics and Campus - Room 218

Soils and Games on Them-Irrigation and Athletics -Paul Bando

Two Years of Field Improvement - J. Sinninger and Mel Robey

Three Programs for Athletic Turf - W. H. Daniel Modern Field Care - Audience Discussion with speakers 6:30 Banquet Glee Club's Music

Joe Wick's Challenge Wednesday, March 4

Disease and Its Evidence - Room 214 Second repeat chance for all interested.

Choose either half day as desired

Room 210 is open Tuesday noon until Wednesday noon. All should stop in. Big display.

Success in Today's Turf Management — Fowler Hall

Success with arsenics on -31 acres - Carl Hopphan

50 acres - P. Frankowski 18 fairways - Louis Miller

Pre-emergence success - W. H. Daniel

Expanding Horizons for Equipment - Roger Thomas

A New Course in Taiwan - Bill Lyons

New Turf Facilities -

The Playboy Course - Tom Burrows & Pete Dye

Sod and Water - Room 218

Water, Weeds and Fish Management - Gary Doxtater Vegetative Planting of Grasses - Al Linkogel, Bob Dye, Ben Warren, W. H. Daniel

Slow starting into Sod Growing-My Story - Bill Huber Sod Handling goes Modern - Slides by anyone How Much Dwarfness in Grasses? - Terry Riordan,

W. H. Daniel

Tree Diseases Today - Ralph Green

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