

DOC'S DUGOUT - An Inning From Our Past

By Dr. Kent Kurtz - STMA Historian

Color It Green - The Story of Turf Colorants & Larry Krieger

Early Days with the Paint and Movie Industry

Michael Krieger and his wife Rose came to Los Angeles from New York in 1917 to start a business in the paint industry. He had worked for a New York based company that specialized in dyes and colors for textiles and rugs with one of their main suppliers being Dupont. Michael established his own company in Hollywood, Krieger Color & Chemical Company, Inc. The company moved several times from 1917 - 1962, from 611 E. 9th Street, 6531 Santa Monica Blvd., Vine & Franklin streets to 927 N. Citrus where the turf colorant business blossomed until 1986. Michael and Rose had three children, Bernard (Barney) 1917, Lawrence (Larry) born in 1923 and Gerry (1925). Throughout the years all of the Krieger children worked for the family business, but it was Larry and Gerry who carried on the family tradition into the 1980's.

Krieger Color in the early years specialized in colors and dyes for rugs and textiles. Later they perfected colors for the blue screen and other photographic color chemicals used by the movie studios. Krieger Color supplied the primary colors for "Technicolor" - cyan (blue), magenta (red) and yellow.



Upland Soccer Complex - 1980 trials on turf colorant.

Technicolor was located two blocks from Krieger Color. Krieger Color also sold all of the gold leaf used in the Grauman's Chinese Theatre and the Egyptian Theatre.

Another product consisted of color chips used in the plastic

injection mold business. Most importantly, they were the pioneers in paints for movie sets, including colors for lawns, groundcovers, foliage and backdrops. They supplied colors to make movie set areas and landscapes brown, black, green or whatever color they needed, plus special effects.

Development of Specialty Products and Turf Colorants

Larry Krieger was introduced to the movie industry when he accompanied his father on visits to movie studios. Larry decided at an early age that he didn't want to join his father's company. Instead he wanted to be an actor and began accepting bit parts in movies and working as a magician's helper. During this same period he attended classes at a local college in chemistry and textiles. Eventually, he changed his mind and joined his father in



Larry Krieger, 7-K color, assisted by Dr. Vic Gibeault, Cal Poly baseball field, January 1971.

Krieger Color & Chemical Company during the 1940's. Larry bought his father's business in 1962 and changed the name to 7-K Color Corporation. Larry created and experimented with new products while also testing and marketing of his complete color line. He also employed his sister,

Gerry, to run the business side of the company. Larry felt that his acting experience was invaluable later in his career when he had dealings with the studios concerning paints. This enabled him to develop paints and polyester dyes for the props and sets of many famous movies and television shows.

continued on page 9

Southern Athletic Fields

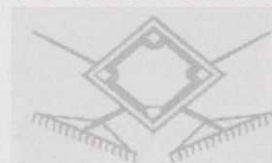
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DOC'S DUGOUT - An Inning From Our Past

continued from page 7

Larry developed the green color Lou Ferrigno wore in the original "Incredible Hulk" program on television. Larry was a brilliant, talented, genius with colors and their ingredients and formulations that he applied to numerous surfaces. With the "Incredible Hulk," the green color was not allowed to run, smear or disappear under the hot lights on the set, so he developed a color fast green color. Later he put this knowledge into some of the turf colorants that he developed in the 1980's. Krieger Color not only assisted in the film industry's development of color motion pictures but also in coloring such items as fruit, food, foliage, landscapes and textiles when they failed to photograph properly. The colors enhanced the objects and it became a standard requirement in shooting movies for Krieger to make living foliage, lawns and sets look natural.

Finally, Larry's big break came in 1954 when President Dwight Eisenhower visited Palm Springs to play golf. In those days greens and tees were overseeded with annual ryegrass but the fairways were dormant and brown. Industry executives called Larry to green up the fairways at the Tamarisk Country Club so Ike could follow the ball better after it was hit from the tee or fairway. Success fol-

lowed Larry in the golf industry as the Arizona Country Club and Phoenix Country Club, site of the Phoenix Open Tournament, employed him to color their fairways in 1957. In the late 1950's Larry Krieger was employed to apply his colorants on the fairways at the Bel Air Country Club and the Riviera Country Club in Los Angeles. Based upon Larry's success in the golf industry many sports turf venues began to seek his expertise and advice on colorizing their facilities in the 1950's and 1960's.

In 1957 Larry created a new turf colorant that he named "Green Stuff". This new turf colorant was introduced and used at Burbank Studios to improve the appearance of the grass on set locations. In later years the paint shop manager at the Burbank Studios contracted Larry to use his colorant in Chicago for a new football movie, ("First and Goal", starring Goldie Hawn) to improve the look of the grass. After filming part of the movie with the Green Stuff, they wanted the grass to look dormant again and a brown colorant was used for this. Green Stuff was used again to restore the grass to its healthy looking state.

Early Evaluation of Turfgrass Colorants UCLA Study 1957

During the fall of 1957, UCLA conducted a series of turf colorant tests under the direction of the late Dr. Victor B. Youngner. The five materials consisted of Dow's M-819 (Dow Chemical Co.), Green Plasma (Midland Chemical Co.), Greenzit (W.A. Cleary Co.), Stayz-Green (O.E. Linck Co.) and Green Stuff (Krieger Color & Chemical Co.).

These tests indicated differences among the 5 products with regard to shade of color, fading, rub-off and degree of natural appearance. Based upon the UCLA studies by Youngner and his staff, 8 weeks after the application, Krieger's Green Stuff was found to be superior to the other 4 materials. This gave Larry the impetus to market the Green Stuff to both the golf course and sports turf industries. He was successful in selling and applying his colorants at the Los Angeles Memorial Coliseum, the Rose Bowl, Dodger Stadium and scores of other athletic venues and the Cal Turf sod farm in Camarillo, California. One of the primary advantages for the use of colorants compared to the normal practice of overseeding ryegrass is that the dormant grass is not forced to overcome the competition of the ryegrass when growth is resumed in the spring.

Cal Poly Study 1971

The demand for continuous green color for sporting events when bermudagrass is dormant increased during this era because of color television and an awareness and desire for perpetual beauty by the American public. The study was conducted on the baseball field at Cal Poly Pomona during the winter of 1971. The individuals who participated in this study were the late Larry Krieger (7-K Color Corporation), the late

continued on page 10

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DOC'S DUGOUT - An Inning From Our Past

continued from page 9

John Van Dam (Turf Advisor Los Angeles County), Dr. Vic Gibeault (University of California, Riverside) and Dr. Kent Kurtz (Cal Poly, Pomona). Ten colorants commercially available in 1971 were used for this study and included: Cal Verde (Cal Turf Sod Farm), Everbright (Davis Paint Co.), Green Stuff (7-K Color Corp.), Greenzit (W.A. Cleary Co.), Sta-Green (Talaco Chemical Co.), Stayz Green (O.E. Linck Co.), Vichem Green (Vineland Chemical Co.), Vitalon Dark & Light (Mallinckrodt Chemical Co.), and Winterlawn (Graniteville, Co.).

After the conclusion of the six-week study, the Green Stuff marketed by Larry Krieger's 7-K Color Corporation had the highest color intensity ranking. At the completion of the test, no plant injury was observed with any of the products. The bermudagrass broke dormancy earlier in the treated areas compared to dormant areas not treated and *Poa annua* was more prevalent in the non-treated control areas than in the colorant treated areas. Comments by coaches and players indicated colorant acceptance. Players stated that baseballs were easier to follow in the treated areas and discoloration to balls, uniforms and equipment were nonexistent.

Based upon the above study, another project to compare the Economics of Overseeding and Colorizing Dormant Bermudagrass was conducted at a golf course in San Bernardino, California, by the late John Van Dam, Turf Advisor, the late Larry Krieger, 7-K Color Corporation and Dr. Kent Kurtz, Cal Poly Pomona in 1972.

Green Stuff was applied on one fairway with a boom sprayer and the adjacent fairway was overseeded with ryegrass. The per-acre cost of purchasing and applying the Green Stuff cost \$87.75 while the cost of the seed, and preparing, seeding and maintaining the fairway with mowing, fertilizing and watering cost \$327.30/acre. Overseeding was four times more expensive per acre than using turf colorants.

Cal Poly Study 1980

The final evaluation with Larry Krieger's assistance was conducted on the 15-acre soccer complex in Upland, California on Santa Ana hybrid bermudagrass in 1980.

Between the 1971 and 1980 studies several colorants were no longer available. Thirteen colorants were applied to the dormant turf, six of these were new or reformulated by Larry Krieger at 7-K Color Corporation. The colorants included Cal Verde (American Garden-Cal Turf), Everbright (Davis Paint Co.), Greenzit (W.A. Cleary Corp.), Nu-Type (The Gregg Co.), Stay Green (Research Product Co.), Vitalon Dark (Mallinckrodt, Inc.), Winterlawn (Virginia Chemicals, Inc.), and the 7-K Color materials developed by Larry Krieger - Green Stuff 100-8 & 100-9, Bluegrass 79-1, Super Bluegrass 76-1, Emerald 77-1, and Lucky Mix 77-7 (Super Sports Turf Green).*

The colorants were evaluated over four observation dates by a group of women selected by Sally Prusia, a student at Cal Poly. Top ranking colorants included Lucky Mix (Super Sports Turf Green), Greenzit, Super Bluegrass, Emerald, and Bluegrass. The areas covered by the colorants broke dormancy 3 to 4 weeks earlier than the non-treated areas. The top ranking colorants showed great potential to be used on sports turf and should be used by sport turf managers when necessary to enhance their facilities.

Due to failing health, Larry Krieger sold 7-K Color Corporation in 1986 to the Special-T Coatings & Chemicals, Inc., North Hollywood, Ca. Larry passed away in May of 1990. With his passing the sports turf industry lost a friend and pioneer who had the creativity to formulate and mix any color of green for a turfgrass surface. There are so many opportunities for the use of good colorants in the turf industry where brown spots, disease, physical damage, fertilizer burn, color for dormant turf, etc. may pose problems. People like Larry Krieger are difficult to replace. He was a genius who understood paints and color. He was a brilliant man who was not afraid to take risks when his colorants were applied to sports turf. We will always remember him as an individual who made grass greener.

** Larry Krieger and Dr. Kurtz mixed up the colorants the night before their application on the Upland Soccer Complex. While talking and laughing, one of the colorants Larry Krieger created to use was mixed wrong and it was named "Lucky Mix". Ironically, the committee of ladies who conducted the evaluations rated "Lucky Mix" the best colorant. At the conclusion of the study Dr. Kurtz named this colorant, Super Sports Turf Green.*

Editors Notes: Many wonderful individuals sent information to me to make this article possible: Gerry Dorsey (Larry Krieger's sister), Robin Nipper (Larry Krieger's daughter), Adrienne Cohan (Larry Krieger's Niece), Rudy Hernandez (Larry Krieger's former assistant), and Alastair Macdonald (President-Special-T Coatings & Chemicals, Inc., the company that purchased 7-K Color Corporation). To all of them thanks for sharing your memories of a very special man.

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