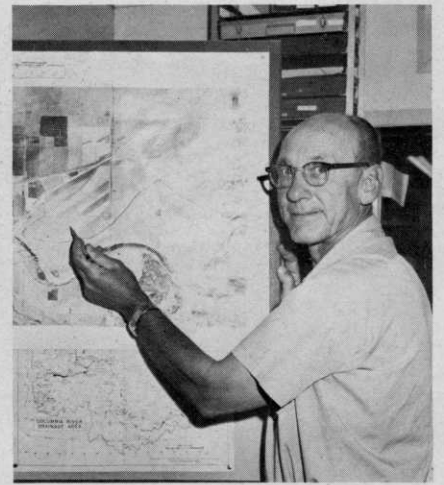




Beside Arden Jacklin, the management team of the Jacklin Company is, left to right: Doyle, sales representative; Lyle, ranch management; Owen, ranch management; and Don, ranch management and research. Doyle and Don are twin brothers, and Duane, their younger brother, is getting his Masters at Purdue University.



Arden Jacklin, president of Jacklin Seed Co., Inc., points out boundaries of seed producing area in Spokane Valley. The area includes land both in Washington and Idaho with Spokane, Washington and Coeur d'Alene, Idaho being the rough limits of the area.

Quality Seed for Specified Needs Is Backbone of the Turf Industry

Jacklin Seed Co., Inc. has developed seed production business by supplying sod producers and turfmen with specific varieties

QUANTITY seed which produces pure strains of a specific grass is the backbone of the turf industry. Investment in a golf green today is figured by thousands of dollars. Once it was in the hundreds. Foreign seed in the original seeding not only costs in terms of dollar replacement but in premium time.

Pure seed is also important to the sod producer, as it is to every professional turfman who is charged with either new seedings or sod installation. Neither can gamble; new growth must be exactly what specifications demand.

Today, these needs are being met by professional seed producers. Jacklin Seed Co., Inc., Dishman, Washington, a major grower and processor, has developed an across-the-board business whereby Jacklin, through distributors, can guarantee varietal strain purity. A visit to

their Spokane Valley operation reveals the broad range of technology needed today to produce and process seed of the quality needed to satisfy market demands.

Jacklin Seed is a family corporation, operated by 5 Jacklins. Arden, Lyle and Owen Jacklin are brothers. Don and Doyle Jacklin are the twin sons of Arden, who heads the company's

Specially designed truck is used to handle bulk seed from combine to bagging. Truck bed will hydraulically unload seed cartons which are then picked up and moved by forklift.





Milling foreman Dean Farnham checks seed ready for storage or bagging. Company has 20,000 square feet of drying area embedded with electric heat cables, plus an additional cold slab area, available for seed storage.



Industrial Park building leased by Jacklin Seed Company, permits storage of 5,500 cartons, each containing roughly 1,300 pounds of grass seed. In addition, bulk storage areas for loose seed are also available.

national and international seed sales. Lyle and Owen, assisted by Don, are in charge of ranch management. Don also handles the research and testing program for the company. Doyle is a seed sales representative and works with the company's public relations program. Their saleable seed comes from 3,072 acres which they farm in Washington and Idaho, and from seed grown specifically for the corporation by more than 80 growers on 18,000 acres in the area. The normal 2 million pounds of Merion bluegrass seed processed yearly by the company accounts for approximately 45% of the total U.S. production.

The Jacklin operation centers on four key programs. One is a grower production program. Another important phase of the operation is development, which concerns variety development, plant breeding, and chemical and fertilizer testing. A third is materials handling, which is responsible for efficient handling of the large volume of the company, and the final program is cost accounting. This latter is extremely important, since growers are paid on the basis of production, quality, and finally, the company's sales.

Grower Production Programs Help Maintain Quality

Grower production programs

are geared to guarantee standards of quality and varietal purity. Production can be gleaned from a crop of Kentucky bluegrass for some 8 years. An exception is Geary Kentucky bluegrass which improves with every year of harvest. Doyle Jacklin reports one field which is now producing its 18th crop. Merion fields produce for an average of 6 years. Seed is planted in the spring with the first crop harvest coming in the following year.

After every harvest, producing fields must be burned. Though this is a hazardous practice, it is an absolute management necessity. Burning has a number of advantages. Most important is the physiological shock to the plant, which causes it to produce more seedheads. Without maximum production of seedheads in this area, growers could not stay in business. Burning also kills weed seed, disease organisms, insects, mice and other rodents, plus removing the excess surface material from the previous crop. Jacklin Seed Company is now testing a number of chemical substitutes in an attempt to produce the same shock effect as derived from burning. Over 150 different chemicals and amounts ranging from pesticides and herbicides to fertilizers and hormones are

included in the testing program.

The grass crop is windrowed by use of self-propelled power swathers, then combined. Irrigation is a necessity for production in the Spokane Valley. The Jacklins, on their more than 3000 acres, use 11 wells and 1 ditch pump, which deliver more than 16,000 gallons per minute. That adds up to almost 1 million gallons per hour of irrigation water. Wells in the area are used to tap a moving underground lake with a water level ranging from 50 feet below the surface at

Milling superintendent Ted Dionne, keeps careful records and inventories of each lot of seed which enters warehouse or plant. A complete lab sheet, containing characteristics, is maintained on each.



Spokane to 300 feet at Coeur d'Alene. Most of Jacklin's wells are hand dug with holes being cribbed at the sides during digging.

Seed delivered to the processing plant is normally 55-60% pure. After removal of the inert material, consisting of leaf straw, seed hulls, and cotton-like substance, the finished seed averages 95-99% pure. To meet market requirements, all seed is blended to pre-calculated grades. In some cases, buyers specify seed with a purity of 85% and 80% viability, in addition to the higher purity lots.

Extensive Research Program Important In Operation

Varietal development, plant breeding, and testing constitutes an extensive research program. More than 80 varieties are always being grown in the evaluation plots. Besides testing their own producing varieties, the Jacklins do evaluation and testing work for a number of companies and experiment stations. They are extremely impressed with a new variety which they have just put on the market, 0217 brand Fylking Kentucky bluegrass. This variety, originally from Sweden, has been tested extensively by golf courses, home owners, and university research stations throughout the United States, four Canadian provinces, and several foreign countries. Test results for ten years have proven 0217/Fylking's resistance to a complete assortment of troublesome lawn diseases, including leaf spot and stripe smut. Spreading by means of underground stems or rhizomes, 0217/Fylking can take severe punishment and withstand close mowing even under drought conditions. Fylking's low growing carpet of green withstands close mowing because of the short distance between the crown and first leaf sheaf, and can be mowed less because of a slow vertical growth. Jacklins believes it has a great future as a lawn and specialty grass in this country.

Materials handling receives particular attention in this oper-



Burning harvested fields is an annual practice. Though hazardous and requiring a permit, it is a necessity to provide the physiological shock needed to insure maximum seedhead production for the following crop. The Jacklins use a crew with two firetrucks and three portable spray units to guard against a fire getting out of control. Perimeter of the field is watered, then fired.

ation. Any efficiency which can be effected will pay dividends because of the large volume handled. All seed, from combine to market bag, is handled in pasteboard cartons. This move has proved a boon to the operation. Seed goes from combine to cartons which can carry up to 1,500 lbs. of processed seed each. These are handled by fork lifts and hauled on specially designed truck beds which can be unloaded hydraulically. Jacklins, together with a Portland engineering firm, designed the sliding, hydraulic truckbed unit which has become standard in the company. Seed is stored at some 5 warehouses, the largest being an Industrial Park warehouse near State Line, Wash., where 5,500 cartons are normally held in storage. One warehouse is large enough that growers can unload bulk trailer loads in a loose state. Normal supply at this single warehouse is 6½ million pounds of bluegrass seed.

Each grower's seed is weighed and tested on delivery. Each lot of seed is inventoried separately, processed separately, and stored as a separate lot until final blending and bagging. In this way, growers have a check on their own seed and are paid accordingly. Final payment is

based on the cost accounting system of the company. Growers gain when sales are high and the market is strong. They thus have a vital interest in production and delivery of a quality product.

Arden Jacklin is known nationally for his work with the International Crop Improvement Association. He has served as president of the Washington State Crop Improvement Association, and on numerous committees throughout the years. He is currently a member of the ICIA's National Variety Certification Review committee. One goal of the ICIA is to establish a national authority for standards which will serve to guarantee the genetic purity of any variety being offered to the market.

The Jacklins are pioneers in the field of seed production and processing, and believe that the future of the grass seed industry depends on a supply of seed which satisfies a more and more demanding market. Today, quality seed from proven varieties must produce turf which is resistant to disease and tolerates abuse while maintaining the luxurious appearance of a natural growing carpet.