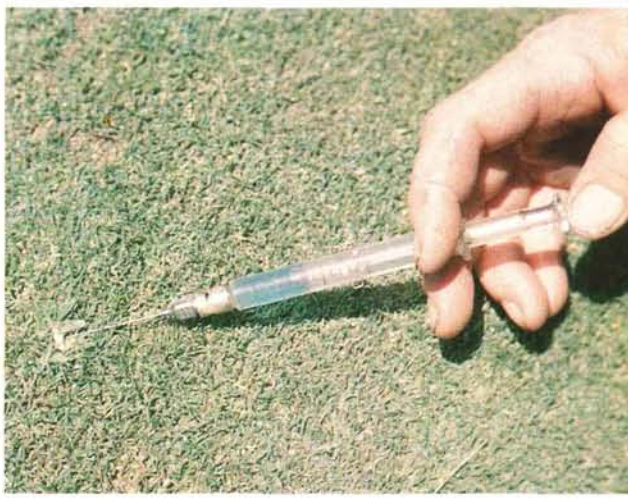
(Above) Goosegrass — its distinct seedhead formation.

(Right) So frustrating is goosegrass control to some that one superintendent tried hypodermic injections of herbicide . . . it failed!



Goosegrass

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GOOSEGRASS *(Eleusine indica* (L) Gaertn*)* is a common weed in the tropics and sub-tropics of both eastern and western hemispheres. It is most frequently found on disturbed soil in the southern part of the United States; however, it has been recorded in all except the extreme northwestern states. Goosegrass is especially quick to invade fine turf areas. It appears to do well under the same cultural practices that our fine turfgrasses respond to.

Goosegrass is a prolific seeder, and in most cases it has three to seven finger-like racemes on one stem. Often 15 to 20 will be produced by one mature plant. Goosegrass is a tufted annual with few internodes, commonly reclining, is leafy and sparingly branched. It has three or more spikelets, flowered, disarticulating above the glumes in between the florets. Mature plants have more than 500 seeds on each raceme. Each mature plant could easily produce 20,000 to 70,000 seeds.

The grain is plump, with minute transversely rugose seed loosely enclosed in a thin pericarp. The basic chromozome number is nine. Goosegrass does quite well in a poor or thin stand of grass, and it grows very well under heavy traffic. It has a strong, extensive root system; all you have to do is try and pull the plant out of the ground to find out exactly how strong a root system it has.

The seed is lightweight and can quite easily be distributed. Winds of a velocity of 25 to 30 miles per hour will cause the seed to become airborne and distributed by the air currents. Golfers could scatter seed about the course with golf cars or on their shoes when the grass is wet because of dew, rain or irrigation water. The seed could be tracked into areas wherever the golfers or machines go.

Goosegrass seedlings proliferate when soils are disturbed in hot weather.

Goosegrass is extremely difficult to mow after it matures. It is easy to tell when the mowers encounter a patch of goosegrass; the blades will create a totally different sound. The mower blades must be sharp to get a satisfactory cut, otherwise they will tear the leaf and fray the ends.

Disease or insects are rarely a problem for goosegrass; however, during 1977, areas were observed where army worms foraged on this weed, leaving only the tough fibrous portion. Army worms were so abundant in 1977 in some areas that eggs were found everywhere, even around this most unpalatable weed.

Eleusine indica is also known by other names, such as toughgrass, irongrass, dogweed, and gardengrass. The name goosegrass is universally used, but it is also mistakenly called crowfoot, especially in northern areas where crowfoot does not grow. Crowfoot is easily distinguishable from goosegrass because its cluster of racemes originates from a central apex of the stem. Its racemes are about half as long as racemes of goosegrass. Crowfoot *(Daclyoctenium aegypstium)*, sometimes called Egyptian fingergrass, is quite a pest in the coastal areas from North Carolina to Florida and across the gulf. It increases each year, but it can be controlled with the same chemicals that control goosegrass. One of the best controls for goosegrass is a strong turfgrass stand as a seedling. Seedling goosegrass is not competitive in bermudagrass, but as it matures it becomes increasingly competitive.

Goosegrass often becomes established along golf cart roads where careless drivers overrun edges of the roads and compact the adjacent turfgrass area. Thereafter, seeds are scattered by golf cars and walking golfers. The person mowing aprons or fringes of the greens with a rotary mower must be ever vigilant not to scatter seed onto the green. Once infested, it is most difficult to eradicate.

Close mowing does not eliminate seed production. Goosegrass will produce seedheads horizontal to the soil line when greens are mowed at ⅛ inch. Grass that can be maintained in healthy condition at this height of cut is very competitive with goosegrass.

Pre-emergent chemicals used to control goosegrass are Benefin, Bensulide, DCPA and others. It is important to apply pre-emerge herbicides carefully at the precise time recommended for best control. Be sure to follow label recommendations carefully.

Post-emergent chemicals such as DSMA, MSMA and similar products used to control goosegrass may not be available for use on golf courses within a short time without a special permit. New materials are being researched which show excellent promise for controlling goosegrass when they are properly applied. Some of these new chemicals are Asulox, Ronstar and Sencor. Goosegrass can be controlled effectively in the South with both pre- and post-emergent chemicals. Asulox has recently been labeled for goosegrass control in Florida. Ronstar has recently been labeled for use on turfgrasses.

Tifgreen, Tifdwarf and common bermudagrass are quite sensitive to Asulox and Sencor if these chemicals are misapplied. They are used on food products such as sugarcane, soya beans and potatoes.

Chemical control is less expensive than hand-picking, but at times hand-weeding is essential. Goosegrass has strong fibrous roots, but the plant can be easily removed by cutting under the crown with a sharp instrument. The plant will not make new growth from its roots. Regrowth occurs only if any aboveground portion of the plant is left standing in the hand-weeding operation. Removal by hand is still practiced in many areas because it does retard the bermudagrasses, the way chemicals do.

Literature reviewed did not mention that goosegrass seed had been found in air currents a mile high, but in 1946, an entomologist found seed in his collecting nets at 4,000 feet. If this operation was repeated, I'm sure some goosegrass and other seed might be found. It was also established that goosegrass was brought into the United States by the early settlers, who used it for mulch. It was also found in hay for animals, just as many other agricultural pests have been brought into this country.

Goosegrass is a prolific seeder, which means that chances for annual reinfestation are good once infection takes place. It is therefore wise to be ever vigilant to prevent its encroachment.