

Natural Grass Green vs. Synthetic PGC Green Tangible & Intangible Comparisons

In comparing the installation of the PGC putting green system as opposed to the installation of natural bent grass greens, it becomes readily identifiable where the benefits lie. It is slightly more difficult to quantify the exact dollar savings associated with the PGC product on an annual basis due to factors such as weather and standards of maintenance intended. However, even the most conservative approach leads to substantial "actual" savings and a number of intangible value benefits.

Following is a listing of potential maintenance savings areas which show conclusively that the savings realized from the installation of the PGC greens would rather quickly offset the original product cost. Further, and even more importantly, the "intangible" benefits add greatly to the value of the product as they help to assure the quality of the golf experience offered on a consistent basis to the playing public.

Tangible Savings Areas

Natural Grass Chemical/Material Requirements

The following materials must be applied to a natural grass green, irregardless of size and/or intended use. Without the correct application, the quality of the putting surface will be adversely affected, if not destroyed.

- Fertilizers - Both for root and plant growth vitality
- Fungicides - Critical for controlling disease
- Insecticides - Critical for controlling insect damage
- Herbicides - Essential for controlling weed infestation and poa annua infestation
- Wetting Agents - Necessary in developing correct soil porosity, drainage, and water intake.
- Topdressing - Critical in maintaining acceptable ball roll, speed and uniformity
- Soil Amendments - Essential in maintaining acceptable soil PH conditions
- Miscellaneous - Materials such as plant growth regulators, bio-stimulants etc. may at times be recommended/required to ensure plant health and soil suitability

The above listed chemicals and materials will cost approximately \$.25 per square foot minimum on an annual basis (\$250 per 1000 S.F.) if purchased in bulk quantities such as golf course use and are absolutely essential to maintaining healthy and playable putting green turf.

PGC Material Requirements

- PGC greens are typically refurbished annually or every other year and new top dressing applied. Costs for the materials usually run approximately .25 per square foot. Dealers typically provide this service to homeowners.

Natural Grass Equipment Requirements

Following is the minimum equipment necessary in maintaining acceptable (plant health and playability) natural grass putting surfaces.

- Greens mower - can be walking or riding
- Verticutters - attachments to the mower to relieve excessive thatch and/or grain, an absolute necessity with bent grass greens
- Aerifier - can be purchased or contracted out - both the machine or the contract service is very expensive
- Topdresser - used to apply sand topdressing, must be applied following all aerifications and ideally periodically during spring, early summer, and fall growing seasons

- Fertilizer spreader - to apply fertilizer and other granular products
- Chemical sprayer - allows the application of liquid chemicals, much preferred over granular products due to their greater control, much less mess, and fewer materials laying on greens surfaces (this is an extremely important issue where children may come into contact with the chemicals applied)
- Backlap/Grinder for sharpening greensmower reels - essential in maintaining a desired cut and not damaging the greens blades.

The above equipment is not a “one time only” purchase. They have varying life expectancies; require extensive and regular preventive maintenance, as well as anticipated repair based on frequency of use and operator skill.

PGC Equipment Requirements

- On a commercial golf course a power broom to perform annual refurbishing may be desired. The cost of a new machine is approximately \$3,000. Alternatively, this service can be outsourced for approximately .25 per sq ft.
- In addition, on a commercial golf course a small lawn tractor may be used to pull a top dressing broom across greens to evenly disburse top dressing
- Roller – water filled roller to adjust speed of greens
- Leaf Blower – to remove leaves and clippings from green

Natural Green Labor/Man Hours

This area represents the potential for significant savings, as a natural grass green requires some amount of attention and maintenance virtually every day, with some periods during the summer in particular requiring extensive time daily. The following is a listing of required tasks for natural greens and follows closely the requirements set forth in the first two categories.

- Mowing - at least every other day, better if done daily
- Watering - daily in summer period, both for water needs and to “cool” the plant during heat stress periods
- Verticutting - periodically during spring, early summer, and fall months
- Aerifying - Minimum once in spring, fall and once during the summer
- Topdressing - following aerification in spring and fall, periodically during spring and fall
- Chemical/Material Application - as needed year round
- Weed Removal - may be required during summer months when herbicide applications can be damaging to the bent grass
- Changing cups - dictated by amount of traffic
- Daily Inspection - for disease, water needs, fertility requirements, etc.
- Equipment repair and preventive maintenance - including mower blade sharpening and height setting and adjustment
- Greens turf repair and/or renovation as needed

As shown, this category is extensive and can easily represent either thousands of dollars spent annually on labor or significant hours committed by management/owners, even for a single green.

PGC Labor/Man Hours

- Limited maintenance of greens on daily basis consists primarily of blowing leaves & other debris from greens with power blower.
- Weekly brooming with pull behind or push type top dressing brooms are recommended
- Occasional rolling to maintain proper green speed.

Skill Levels of Green Caretakers

- Greens keepers maintaining natural bent grass greens require a high level of knowledge of chemicals, turf management, fertilizer and other areas to properly maintain healthy natural grass greens.
- PGC can be maintained by virtually anyone with a small amount of training.

Intangible Benefits of PGC Greens over Natural Grass

The following benefits, while not having a “direct” dollar value associated with them, as a whole add tremendous value to the PGC putting greens system and their impact on the desired golf experience.

- Knowledge that the green(s), the most critical component of the golf course operation, are always at peak performance and aesthetics.
- No loss of revenue and/or patronage due to either unacceptable putting green surfaces or work being performed on them - either routine, repair or renovation.
- Not being faced with the issue of greens maintenance/agronomy expertise to maintain the greens; which frequently results in the necessity of a qualified superintendent and/or quality consulting services.
- Being confident in the ability to plan marketing programs knowing the golf green(s) will present as the marketing tool desired.
- Greens maintain their desired color year around (as opposed to the winter dormancy which natural grass greens endure)
- Uniqueness of product can be utilized as a marketing tool and benefit

Golfer Benefits

The following benefits relate both to the usage and enjoyment of the facility by the golfers and to the intangible benefits realized by the golf operation.

- True ball roll on every green - every day
- Ability to control the speed of every green, irregardless of season and/or weather conditions
- Consistency of greens texture and firmness - no drastic change during dry or wet seasons, or from freezing/thawing cycles
- Color and look of greens remains consistent - golfers tend to judge greens quality as much by color as any other factor
- Count on being open for use or play - every day
- No disruption of use/play for maintenance practices such as aerifying, spraying etc or even for routine daily practices such as mowing, watering etc.
- No adverse or poor putting conditions from aerifying, repair procedures, turf damage etc.
- No worn conditions around cups due to traffic (an extremely important factor on small surfaces)
- No bumpy surfaces from traffic on wet or dry greens or thawing conditions

The most valuable intangible benefit, and maybe the most important, is PEACE OF MIND realized from knowing the green(s) are always in good condition, not a maintenance issue; allowing focus on developing the business.

While there are certainly other benefits and advantages to be realized and associated with the PGC putting green system, the ones outlined in this overview are obviously substantial. They positively impact the ease of maintenance, golfer’s enjoyment and use of the facility, management’s ability to operate the facility, and the cost savings can dramatically enhance the profitability and financial success of the golf facility.