GREENS REFRESHMENT
REBUILD OR RENOVATE - A PRATICAL APPROACH

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Course Refreshment

The ASGCA (American Society of Golf Course Architects) recently published guidelines to assist golf course owners and manager in the decision-making process regarding renovations. In these guidelines they identified that the life span of a normal golf green to be 15 to 30 years*.

*www.asgca.org
Definition of Renovation and Remodeling

**Renovation:**
*To restore to a former or better state* – The repairing, re-building, and general improvement of the golf green from a technical standpoint

**Remodeling:**
*To alter the structure of* - Altering the design to update the golf green for the modern game and/or the modern trends in design.
Most golf courses are in a general state of constant change as club officials try to keep pace with changing conditions around and within the club.

As the most visible, complicated and expensive part of the course, it is generally with the golf greens where the most difficult problems are usually encountered. And the question most often asked or encountered when problems arise or persist long term is whether to rebuild or renovate the golf greens.
There are several factors or reasons that might have affected your Greens life span and some of these will certainly weigh into the decision on whether to rebuild or renovate your golf greens.

Prior to undertaking any greens refreshment program, it is important to understand the possible reasons for your objectives and their considerations so you can assess your options!
POSSIBLE REASONS FOR THE REFRESHMENT OF YOUR GOLF GREENS

1. The accumulation of layers on the surface or in the profile of the original construction.
2. The desire to convert to new grasses and improve playing conditions.
3. Response to changes in the game from an architectural standpoint (like the interaction between green speed and hole locations).
4. To reduce maintenance cost.
5. You have fundamental weaknesses in construction
6. Pride in membership, which generates the desire to have the best possible golf greens.
Investigation - Undisturbed Soil Testing

Conducting an **undisturbed** soil test will determine the overall viability of the root zone mix at various depths, dictating which layers of the green are functioning properly and which are not.
It is best to examine soil profiles in four-inch segments from 0” - 12” (or deeper if mix depth has increased), keeping the soil layering undisturbed so that each layer can be analyzed.

- Many times a faulty functioning green may just have problems in the top two or three inches of the putting surface.
- Often, this negative performance is due to organic build-up, black layer, or other layering issues.
- Another key evaluation is to ensure that the drainage and gravel blanket have not been compromised and are functioning properly.
Excessive Thatch
Improper Topdressing
Black Layer
More Black Layer
Compaction Layers
Sod Layer
Soil Layering
Refreshment Considerations

1. Why are you planning to refresh?
2. What challenges are you currently facing?
3. What are you trying to accomplish?
4. What obstacles might be in your way?
5. Has the depth of your current mix increased over time due to topdressing applications?

The answers to these questions will dictate the refreshment type that best meets your needs.
Three main programs for Refreshment of Golf Greens

1. Cultural Practices
2. Strip Renovation
3. Full Core Remodeling
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Cultural Practices

1. Cost: Low
2. Resources: Moderate
3. Materials: Low
4. Disruption of Play: Low to Moderate
5. Outside Contractor: None
Strip Renovation

1. Cost                     Moderate
2. Resources                High
3. Materials                Moderate
4. Disruption of Play       Manageable
5. Outside Contractor       Beneficial not necessary
Full Core Remodeling

1. Cost High
2. Resource Use High
3. Materials High
4. Disruption of Play High
5. Outside Contractor Yes
We are seeing more of:

• Utilization of locally available, suitable sands for greens
• Simplifying the green construction
• Variety in green sizes
• Minimum of 7 hole locations
• Dual Irrigation heads for precise watering
We are seeing less of:

• Greens with significant internal infrastructure

• Greens with severe contours more emphasis on subtlety

• Single irrigation heads around green

• Green Color- Firm and fast with “off color” appearance
The decision on whether to remodel or renovate should ultimately be based on the nature of the problem. You must carefully weigh the chances of satisfactorily resolving the problem by modification against the merits of total full core remodeling.

You should determine how serious your problem is, which method of correction is the most cost effective, and which method gives the best chance for lasting improvement.

The opinion and advice of someone well versed in agronomic principles will best answer these questions. If design is at fault, a competent architect could help correct it. **A good golf green comes from blending sound agronomic features with good architecture.**
Because of the variety of circumstances under which the decision to rebuild or renovate may be based, it is very unlikely that any one unyielding rule will apply in all cases.

Probably the only factors with any real bearing on the final decision will be an accurate cost estimate and a determination of which method will cause the least inconvenience to your golfers.
Thank You!
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