Call them what you like — pull-carts, push-carts, or trolleys — the use of these bag-carrying devices is on the rise throughout the United States. Many people choose to use pull-carts to reduce fatigue on the shoulders, back, and legs associated with carrying their clubs. In many respects, pull-carts can be viewed as a positive trend, as more people choose to walk while playing golf. In 1995, *Golf Digest* and the USGA published *A Call to Feet*, a booklet that encouraged golfers to park their motorized riding carts and walk the course. The brochure emphasized the many benefits of walking, including:

- The health benefits of burning more calories and the reduction of cholesterol levels.
- More enjoyment of the quality and beauty of the golf course.
- Getting back to the tradition of the game in which walking the course plays a significant role.
- More time for interaction and conversation with opponents or fellow competitors.

With more golfers walking and using pull-carts, superintendents and course officials are questioning whether pull-carts are damaging the course and if specific rules should be established for the use of pull-carts.

### A COMPARISON OF PULL-CARTS AND MOTORIZED GOLF CARTS

Pull-carts come in a variety of shapes, sizes, and styles. Most hand-drawn carts generally weigh 7 lbs. to 17 lbs., with the weight of the cart and golf bag distributed over two or three wheels. The older style two-wheel carts with narrow 2" tires are gradually being replaced by newer, lightweight models that have a tire width of 3" to 4" for better weight displacement. Another development is the three-wheel push-cart with air-filled tires that are easier to push and provide better stability on uneven surfaces. There is an increase in popularity of motorized bag carriers that are propelled by a chain or drive train and powered by a small battery. These models are slightly heavier than the non-motorized pull-cart. There is even experimentation with remote-control bag carriers that follow the golfer throughout the course with the use of a small transmitter worn by the golfer and the use of GPS technology. In general, pull-carts are easy to maneuver and allow the golfer to walk directly to the ball in preparation to hit the next shot.

In contrast, most electric and gas-powered golf carts are relatively standard in design, with seats for two golfers and space at the rear of the vehicle to secure two sets of clubs. Most motorized golf carts weigh between 800 and 900 lbs., not counting the added weight of two riders and golf bags. The weight is displaced over four air-filled tires with a relatively wide contact patch over the turf.

### DO PULL-CARTS CAUSE DAMAGE?

Superintendents spend a significant amount of time preventing or correcting damage caused by motorized golf carts with programs including core aeration, sodding ends of cart paths, and managing a network of ropes and stakes to distribute wear. Turf damage by golf carts is mostly a function of
the greater weight of the vehicle combined with the abrasive action of the wheels during turns, starts, and stops, as well as repeated traffic over a confined area.

Intuitively, we know that pull-carts are far lighter than motorized golf carts, but this does not mean that pull-carts do not damage turf. Reported damage is not so much a function of the physical characteristics of the pull-carts, but rather where they are taken. Concentrated foot traffic and pull-cart use in a confined area is likely to cause thin turf conditions comparable to the damage caused by motorized golf carts. Because pull-carts are more maneuverable, golfers are more inclined to take these devices in areas they would not normally drive golf carts. Areas that are most vulnerable include:

- Tees.
- Green fronts (aprons).

Wide tires help, but keep them off the collars.

Golfers with pull-carts are inclined to take the most direct path to their next shot, even if that means pulling their cart across the narrow gap between the green and surrounding bunkers. To avoid damage, pull-carts should always be taken outside the greens and bunker surrounds.
• Narrow areas between greens and surrounding bunkers.
• Edges of greens.
• Poorly drained areas of the course.

Other concerns include the use of pull-carts during the winter when there is less potential for turf recovery and unrestricted pull-cart use when the course is excessively wet, which contributes to rutting and soil compaction.

Some courses have banned the use of pull-carts, citing the smaller tires that may cause greater soil compaction and turf damage. There is little evidence to support this claim, which is usually an attempt to force golfers to rent motorized golf carts. It is important to point out that any vehicle (pull-cart, motorized golf cart, or turf maintenance equipment) will cause damage to wet, saturated turf. Restrictions on pull-carts should be considered on days when conditions are excessively wet and there is potential for the carts to cause ruts in the turf. Under relatively dry conditions, there is very little damage observed from pull-carts except in confined areas. Some of the more exclusive clubs or high-end daily-fee courses do not like the look of pull-carts, in which case the banning of pull-carts is a personal choice and no reflection on the perceived damage cause by pull-carts. There may be legitimate concerns regarding the use of pull-carts due to unusually hilly terrain that may pose a safety risk or where there is an extended distance between greens and tees that would slow the pace of play.

ETIQUETTE AND GUIDELINES
FOR USING PULL-CARTS

Golfers who choose to use pull-carts during a round of golf should do so in a way that does not cause damage to the course or negatively influence playing conditions. This is often a matter of good common sense and proper golf etiquette. Tees and greens are the most heavily trafficked sections of the golf course and appear to be the areas most prone to damage by pull-carts. Golfers are especially sensitive to turf conditions on the aprons and green banks, which are important areas for the short game. Unnecessary traffic from pull-carts contributes to matted turf and undesirable playing conditions around greens.

To simplify policy, many courses enforce the same rules for pull-carts as for motorized golf carts, i.e., carts must be kept 30 feet away from all tees and greens. Alternative policies can be formulated based on the following guidelines to accommodate special circumstances at each course:
- Pull-carts should have wide wheels (approximately 3" to 4") or air-filled tires to displace the weight of the cart and golf bag over a wider area. The heavier battery-operated carts should not pose a concern as long as they have relatively wide wheels.
- Pull-carts should be kept a reasonable distance from tees and greens, and they should never be parked directly on tees or greens. A reasonable guideline is to park pull-carts 15 to 30 feet from the edge of tees and greens. Cart paths should be used for parking pull-carts wherever they are available, especially around tees.

Golf course superintendents spend a significant amount of time correcting damage caused by motorized golf carts.
Guidelines for Using Pull-Carts

- Pull-carts should have wide wheels (approximately 3" to 4") or air-filled tires.
- Pull-carts should be kept 15 to 30 feet from the edges of tees and greens.
- Pull-carts should be directed around greenside bunkers and should never be taken in the narrow gap between the green and surrounding bunkers.
- Pull-carts should never be taken across excessively wet areas.
- The use of pull-carts should be suspended or restricted following periods of heavy rainfall or under persistently wet conditions.

- Pull-carts should be directed around greenside bunkers and should never be taken in the narrow gap between the green and surrounding bunkers.
- Pull-carts should never be taken across excessively wet areas, which is likely to cause turf damage and rutting.
- Policies that temporarily suspend the use of pull-carts should be considered following periods of heavy rainfall or in sections of the country that experience persistently wet conditions for an extended period of time.

CONCLUSION

Pull-carts have made the game more enjoyable for many golfers by allowing them to walk the course without the added exertion of carrying their clubs. Golfers have known this for years in England, Ireland, and Scotland, where the use of "trolleys" is common. Superintendents, golf professionals, and course officials should not be overly concerned about the use of pull-carts since they are lighter weight and far easier on the turf than larger motorized vehicles. While many courses have policies for the use of motorized golf carts, few have addressed rules for the use of pull-carts. The points discussed in this article, along with proper golf etiquette and good common sense, should guide the development of such policies. Encouraging golfers to walk the course more often, along with the possible use of a pull-cart, is better for the golfer’s health, better for the course, and better for the game.

REFERENCES


PATRICK GROSS is director of the Southwest Region office, based in Santa Ana, California.