



CARLOS CREEK
WINERY

Catapult and Trebuchet Contest

General Rules and Safety Precautions

- Catapult & Trebuchet Ammo will be a one gallon jug of water. Apple Toss ammo will be 4–8 ounce apples.
- You must supply your own ammo.
- Machine shall consist of springs, rubber, cords or deadweight (swinging or fixed) as a means of stored energy. Machines may also utilize rope or cord with a pouch attached to a solid arm as part of the throwing device. Machines shall be constructed out of wood or metal.
- Maximum counterweight of no more than 800 pounds for Catapult/Trebuchet Contest
- Maximum counterweight for Apple toss of 50 pounds.
- A trigger mechanism must be used to fire the machine.
- Axle of machine must be made of metal, cannot be constructed out of wood or plastic.
- A mechanical device may be used to cock the machine.
- A horn or other sound device must be used to signal the spotter/ audience.
- All machines are subject to inspection by Carlos Creek Winery Staff.
- All machines and contestants shall abide by the General Rules and Safety Precautions.
- All catapult and trebuchet machines must have a safety strap or mechanism to hold the throwing arm or boom in case of misfire when loading. You are responsible for making sure everyone is clear of your machine, in case of a misfire. This safety feature is to be separate and different than the firing mechanism. Personnel handling ropes or cable should wear gloves such as a sailing or repelling type to prevent burns.
- Any machine found to have structural defects (weld fractures affecting the pressure vessel, load beams, firing pins, any load bearing members, supports or support subsystems) will be banned

from the competition until repaired and re-inspected by a member of the safety committee.

- No Lag bolts in load bearing applications. Lag bolts are considered low end load bearing components and will not be approved in any application where stress can fatigue the lag or the hole made for it. The approved method of attachment is with carriage, shoulder, or hex head bolts with washers and backing plates.
- Any shackles on a machine must have a safety tie on pin to prevent loosening.
- Small holes for stabilizers will be permitted. A 24"x24"x24" hole is acceptable and must be filled, tamped and topsoil replaced before leaving pit area. It is your responsibility to keep pedestrians from falling in your hole. Leave No Trace.

Catapult and Trebuchet Contest Procedures

Objective is to design, construct and fire a catapult or trebuchet to hurl a one-gallon jug of water (or in the case of the High School Division, apples) as far as possible.

- In the Catapult & Trebuchet Contest, there are three divisions of competition:
 - Collegiate (College, university or tech school sponsored teams)
 - Commercial (Business sponsored teams)
 - Amateur Teams
- In the Apple Toss Contest there is just one division of competition:
 - High School sponsored teams
- Teams may consist of a maximum of 8 members in the firing zone. Unlimited numbers of builders and designers may construct the catapults & trebuchets. Only 8 may be engaged in firing.
 - Apple Toss Teams must be accompanied by a faculty representative at all times.

- Ammo will be checked for compliance. Teams found firing contraband or tampered ammo will be disqualified.
- Safety checks and practice throws will be completed prior to the public opening of the contest grounds. A schedule will be sent to registered teams prior to the contest.
- Each team will be allowed to complete 3 launches. Teams have 3 minutes to fire their machine. Teams will launch in sequence and must be aware of their firing status and prepared to fire. Machines not able to fire when the Master General of the Launch decides your 3 minutes are up will forfeit that round.
- Cash prizes will be awarded for 1st, 2nd & 3rd place distance in each division.
- Overall Grand Prize Champion will go to the longest distance among the 3 Catapult & Trebuchet Contest Divisions.