

ARBORICULTURE TECHNIQUES

Description: The objective of this event is to evaluate the skills and knowledge of the participants on general and accepted arboricultural practices. The competition is intended to be competitive and educational for all students, regardless of their skill level.

The competition is split up into three areas: Knowledge Exam, Climbing Skills, and Throw Line Skills. A two-person team will perform the three areas, with each team member taking the exam, and then one team member performing the climbing skills, while the other team member performs the throw line skills part of the event. *[A back up event (knot tying) will be conducted concurrently with the Climbing Skills if there is a forecast of possible rain. Should all or a portion of the Climbing Skills event be cancelled due to rain-out, the Knot Tying event scores will be substituted for all Climbing Skills scores.]* The same two-person team must perform all areas of the competition. Schools are limited to one two-person team per school.

Pre-Event Qualifying Test: There will be a proctor monitored online test held onsite at NCLC. The testing center will be open Tuesday, March 14 from 10 am – 8 pm and Wednesday, March 15 from 7 am – 7 pm. See the schedule for room assignments. Participants from the same school are to take the test individually but must come to the testing center at the same time. Results will be posted on Wednesday night at 9 pm.

Knowledge Exam (Pre-Event Qualifying Test): All students participating in the arboriculture event will take a general knowledge test. The test will be based on tree biology, safety, climbing, pruning, knots, planting, and other general tree care practices. The test will be a variety of true/false and multiple-choice questions. Tests may vary in length of 25 or 50 questions from year to year.

Students who take the online exam must be the same students who compete in the skills competition. After all tests are scored and the 32 qualifying teams are identified (based on combined test scores of both team members), the climbers will be invited to schedule their competition time slot (a scheduling link will be shared with schools Wednesday night after results are posted, and schools will also have the opportunity to register during the Event Briefing on Thursday). Event times may change due to weather conditions and tree evaluations. Students will have a chance to review the test after checking into the climbing skills event.

Climbing Skills: This area of the competition is designed to showcase the climbing skills needed to perform everyday tree care work. Competitors must complete three tasks in the tree and will be scored on their climbing skill and ability. They **must** arrive 15 minutes early to review rules or 30 minutes early if they need gear inspected. The Davey Tree Expert Company strongly recommends use of the provided equipment.

There will be a time limit set by the judge for the completion of these tasks. The time will start when the climber's foot leaves the ground and stops when the climber is on the ground and completely unclipped from their climbing system. The time **will not** be used as part of the score or to adjust the points earned during the climb. Time is only used as a tiebreaker for this event. A climber who runs out of time and has not finished all three stations will only receive points for the stations that were completed. Time will be stopped to address a safety issue and will resume once the issue has been cleared. See below for more information regarding the climbing skills portion of the event.

Throw Line Skills: This competition is designed to show the skills required to set a climbing line into a tree. Competitors must use a throw line and ball to install a throw line into a branch union. See below for more information regarding the throw line skills portion of the event.

Time: Team members will have one hour to complete the online exam.

Limits: If there are more than 32 teams registered, the teams with the lowest combined test scores (both team members) will be excluded from the climbing skills and throw line skills portion.

GENERAL INFORMATION FOR THE CLIMBER

All climbers will use the same climbing line and will be anchored at the same tie-in point.

Climbers will tie all their own knots and assemble their own climbing system. Knots must be tied-dressed-set and inspected before use. Assistance will be given if the climber is unfamiliar with their climbing hitch.

Climbers will choose an approved friction hitch for climbing. Approved hitches include: Blake's Hitch, Tautline Hitch, Schwabisch, Distel, Michoacan, or VT. No other hitches will be accepted. Stopper knots must be used for a Blake's and Tautline.

All climbers may use a personal hand saw and scabbard if the saw teeth are removed or covered. A saw will be provided to use.

A tree inspection does not need to be done at the start of your time.

All climbers must be safely tied in at all times during the climb. A lanyard must be attached to the harness and used where required.

All intentional swings must be verbally announced by the climber and acknowledged by a judge.

Slack in a climber's line shall not drop below the climber's knees. A warning will be issued.

Disqualification may result from any of the following actions:

1. Dropped Equipment: Any equipment or item dropped from the tree by a competitor.

1st time: 3-point deduction

2nd time: 5-point deduction

3rd time: disqualification

2. Safety & Misconduct: Safety issues; excessive arguing with a judge; inappropriate language or any other misconduct during event; more than 1 minute late for your event.

1st Violation: Verbal Warning

2nd Violation: 5-point deduction

3rd Violation: disqualification.

HAND SAW STATION

The climber must lanyard in and ring the bell with the blade of the hand saw. Hand saw and scabbard will be provided by event sponsor.

POLE PRUNER STATION

The climber must lanyard in and use the head end of a pole pruner to ring the bell. Two hands must be used on the pole. The pole must be re-hung as found by the climber.

LIMB WALK STATION

The climber must walk out a limb, lanyard in, ring a bell with the blade of a handsaw, and walk back in again. At no time during this station is the plumb bob hung on the limb allowed to touch the ground. A point deduction will occur for the plumb bob touching the ground.

LIMB TOSS STATION (OPTIONAL - BAD WEATHER)

In the event of inclement weather and the limb walk cannot be performed safely, we will set a Limb Toss Station. The climber must lanyard in near a bucket with limbs and ring a bell. A target will be set on the ground for the limbs to be tossed into. The climber must give an "All Clear" before tossing a limb. The climber gets two chances to hit the target. The first limb to land in the circle is worth 3 points. The second is worth 2 points. More than half of the limb must land in the target area. If the climber does not get either limb in the target area, the climber must move on without throwing any further limbs.

GENERAL INFORMATION FOR THE THROW LINE

The team member who did not compete in the Climbing Skills Competition must complete this skill. The competitor must inform the Head Judge when they have arrived at the Throw Line Competition.

Throw line and bag will be provided. However, a student may use their own throw line and bag. Climbing rope will be provided.

To be scored, the throw line must be through the branch union and below the flagging that marks the target area, isolated, and the student must hold both parts of the throw line hanging from the union.

There will be three targets set in the tree. The highest target will be approximately 40 feet from the ground.

The student will only be allowed FIVE (5) throws. The throw line can be manipulated into a branch union for a score. The points allotted for the targets will be: highest – 5, middle – 3, lowest – 1.

The thrower may set one climbing line (rope) into any union. The set climbing rope must be isolated and the student must be holding both parts of the rope hanging from the union to count as a score. Rope installation is worth Five (5) points. Only one climbing rope installation will be scored

There is a five (5)-throw or eight (8)-minute time limit for this event; due to weather or site conditions, the time limit may be adjusted by the event sponsor.

If a throw line gets stuck, the student will receive no points for that throw and may continue with the use of a second throw line. Additional throwlines stuck will result in a point deduction.

Disqualification may result from any of the following actions:

1. Dropped Equipment: Any dropped equipment or item from the competitor, including unannounced removal of a throwball aloft

1st time: 3-point deduction

2nd time: 5-point deduction

3rd time: disqualification

2. Safety & Misconduct: Excessive arguing with a judge; inappropriate language or any other misconduct during event; not completing the event

1st Violation: Verbal Warning

2nd Violation: 5-point deduction

3rd Violation: disqualification

JUDGING CRITERIA

Points: 100 possible points per team member; 200 possible points towards the team score; each team member's individual scores will be combined for the team total.

Each team member can earn a possible 50 points for their portion of the event. The throw line competitor can earn 50 points and the tree climb competitor can earn 50 points. The points earned for the throwline and tree climb will be shared by each team member since only one team member performs each of these skills.

Climbing Skills Time will only be used as a tiebreaker. Throwline Time will be used as a second tiebreaker.

Event sponsor will provide all equipment necessary to complete both the climbing and throwline event: Competitors may use their own equipment for the event; however, it must be inspected prior to the scheduled time slot. Competitors must arrive 30 minutes prior to their start time to ensure a thorough gear inspection.

Each individual competitor must provide their own footwear suitable for performing tree care functions. Sturdy boots that cover and support the ankle will be required for both competitors. Soles should provide adequate traction for climbing and ground work (no leather soled shoes will be permitted).

Climbing-style helmets and safety glasses must be worn at all times during the skills competition and while in the competition area. Helmets need to be ANSI Z89.1 rated, and eyeglasses need to be ANSI Z87 rated. Chin straps on the helmets are required.

If a competitor wishes to use their own equipment, the competitor must accept the following conditions:

1) All gear will be inspected and approved for use by the judges before the skill competition. Gear will be inspected at the competition site thirty (30) minutes before the competitor's scheduled time. Competitors must use the supplied climbing line.

2) **All gear and equipment must meet or exceed current ANSI standards applicable to the Tree Care Industry.** All gear shall have a label from the manufacturer stating this fact. The burden of proof lies solely on the competitor. If an item does not meet the standard, or the manufacturer's label is missing, it will not be allowed in the competition. Substitute gear will be available for use by the competitor.

Rope Snaps must be a self-closing and locking type. Carabiners must be a self-closing and double locking type that require two distinct motions to unlock the gate. Both must meet the ANSI Z133 safety standards for tree care.

3) **No improvised gear or alterations to gear will be allowed. NO homemade gear or equipment will be allowed.**

Sponsor is required to supply the following materials for the event:

- All gear and equipment necessary for the tree climb and throw line
- Rope or tape and stakes to mark off the competition area
- Stopwatches
- Sufficient number of judges and event monitors.
- Any other items deemed necessary for this event