KCSOS

Kern County Superintendent of Schools

Groundskeeper HANDBOOK

Forward

Welcome to the Grounds and Landscaping Crew Handbook for the Kern County Superintendent of Schools. This handbook is intended to serve as a comprehensive guide to the expectations, responsibilities, safety standards, and procedures that support your vital role in maintaining the office's outdoor spaces.

Our grounds—spanning school campuses, administrative buildings, and office-owned commercial properties—are a reflection of our commitment to excellence and community pride. From students and educators to families, staff, and visitors, the first impression people have of our office often begins the moment they arrive on our properties. Clean, safe, and well-maintained landscapes contribute not only to aesthetic appeal but also to the functionality, safety, and daily operations of our facilities.

As a member of the Grounds and Landscaping Crew, your work ensures that our outdoor environments remain inviting, accessible, and aligned with the high standards of our organization. Whether you're preparing an athletic field, maintaining green spaces around an office building, or responding to seasonal needs, your role is essential to our mission.

Proper upkeep of pathways, play areas, and sports fields minimizes hazards and ensures that all students, including those with disabilities, can navigate the campus safely. A well-maintained environment reduces the risk of accidents and promotes a sense of security and overall well-being among students and staff.

This handbook outlines the guidelines and best practices that help us achieve consistency, quality, and safety across all office properties. It is a resource to support you in your work and uphold the values we share.

Thank you for your continued dedication and professionalism. Your efforts directly contribute to the success, safety, and pride of the entire KCSOS community.

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MISSION

Our Grounds Department is dedicated to creating and maintaining safe, sustainable, and aesthetically pleasing outdoor environments that support the well-being and educational success of our students, staff, and community. Through proactive landscaping, routine maintenance, and environmentally responsible practices, we strive to enhance the learning experience by providing clean, functional, and welcoming spaces for all.

VALUES

Safety First

We prioritize the health and safety of our students, staff, and visitors by maintaining hazard-free environments and adhering to safety protocols.

Sustainability

We are committed to environmentally responsible practices, including water conservation, waste reduction, and the use of eco-friendly materials.

Excellence in Service

We strive for the highest standards in all aspects of our work, ensuring that our facilities are clean, functional, conducive to learning, and represent the reputation of KCSOS in the community.

Teamwork and Collaboration

We work together, supporting one another to achieve common goals and foster a positive work environment.

Respect and Integrity

We treat all individuals with dignity and honesty, building trust within our team

Accountability

We take responsibility for our actions and decisions, ensuring that our work meets the expectations of the office and its stakeholders.

Continuous Improvement

We are dedicated to ongoing learning and development, seeking innovative solutions to enhance the quality of our services.

CODE OF ETHICS

The Superintendent believes that an effective County Office of Education requires the services of persons of integrity, high ideals, and human understanding in its programs and services. All employees are expected to maintain high standards in their working relationships. These standards include the following:

1. Maintain courteous professional relationships with districts, students, fellow staff, and the public.
2. Maintain efficiency and knowledge of the developments in assigned areas of responsibility.
3. Conduct all County Office of Education related professional activities properly and within established protocol.
4. Establish and maintain cooperative working relationships with districts, other agencies and the community.
5. Place the welfare of the students as the first concern of the county office of education.
6. Restrain from using County Office of Education, school contacts and privileges to promote partisan politics, sectarian religious views or propaganda of any kind.
7. Protect and properly use County Office of Education properties, equipment and materials.

The Superintendent expects professional education to follow the rules of conduct as outlined in the Code of Regulations, Title V, Section 80331-80338.

The Code of Ethics can be found in internal.kern.org or the link below:

http://internal.kern.org/wp-content/uploads/2013/09/SP4260CodeofEthics1211.pdf

EXPECTATIONS OF EXCELLENCE

On many occasions, M&O personnel are the first and possibly the only KCSOS employees in the building encountering the public. To promote good public relations, M&O employees should possess the following characteristics:

1. KCSOS believes that all employees and guests should be treated with dignity and respect
2. Neatness in dress and personal appearance
3. Timeliness
4. Reliability and dependability
5. Exemplary customer service and willingness to be obliging to visitors
6. Initiative
7. Willingness to follow directions to the best of his/her ability
8. Ability to communicate with his/her supervisor and all Stakeholders openly and professionally.

INTERACTING WITH STAFF

1. Be courteous and impartial with all staff members. M&O employees are to focus on their work assignment(s) during their work period to improve efficiency, engagement and performance levels while performing their M&O duties.
2. No verbal altercations should occur with staff or guests.
3. Likewise, M&O staff should report concerns or room conditions to the site administrator/designee and/or the M&O Director, Maintenance Manager, or any M&O manager or supervisor.

REPORTING

The M&O Department staff are responsible for all major repairs and maintenance of buildings and grounds. Any need for the service of the Maintenance and Operations Department will be reported to the site Administrator, Maintenance Manager/M&O Director and office personnel when they are available. During hours when office personnel are not on duty, the employee will report emergency maintenance problems to the Maintenance Manager, M&O Director, or site administrator/designee. Emergencies occurring after hours will be reported to the Maintenance Manager, M&O Director, or site administrator/designee

KCSOS Grounds Safety Guidelines & Procedures for Groundskeepers

GENERAL SAFETY GUIDELINES

Safety is the top priority in all groundskeeping operations. Every team member is expected to:

- Always wear required **personal protective equipment (PPE)**: gloves, eye protection, hearing protection, safety boots, and high-visibility clothing when appropriate.
- Report any **unsafe conditions**, hazards, or damaged equipment immediately to your supervisor.
- Keep work areas clean and organized to **prevent slips, trips, and falls**.
- **Hydrate regularly** and take breaks in shaded areas during hot weather to prevent heat-related illnesses.
- Never operate equipment or perform tasks under the influence of **alcohol, drugs, or medication** that impairs performance.
- Follow proper **lifting techniques**: bend at the knees, keep your back straight, and ask for help when lifting heavy or awkward objects.

PROPER USE OF EQUIPMENT

Before using any equipment, all groundskeepers must be trained and approved by a supervisor.

GENERAL RULES

- Inspect equipment before each use. Do not use it if damaged or malfunctioning. If damaged or malfunctioning, notify your immediate supervisor or M&O management immediately.
- Read and follow the manufacturer's instructions and warning labels.
- Never remove or bypass **safety guards or shields**.
- Turn off and **disconnect power or remove spark plugs** before performing any maintenance or adjustments.
- Store equipment only after it has cooled down, cleaned, and properly stowed.
- Always refuel gas-powered equipment **outdoors** and away from ignition sources. Never refuel while the engine is hot.
- Ensure all fluid levels are at operating levels at a minimum once per week.

EQUIPMENT-SPECIFIC REMINDERS:

- **Mowers**: Clear area of debris before mowing. Be alert on slopes. Never leave running equipment unattended.
- **Trimmers/Edgers**: Keep bystanders at a safe distance. Maintain a firm grip with both hands. Do not use it if anyone is within 25 feet in case possible flying debris.
- **Blowers**: Wear hearing protection. Do not direct airflow toward people, animals, or vehicles.
- **Power Tools**: Use extension cords rated for outdoor use. Do not use electric tools in wet conditions.

HANDLING HAZARDOUS MATERIALS (PESTICIDES, HERBICIDES, FERTILIZERS)

Handling of chemical materials must always comply with safety protocols and regulations (e.g., OSHA, EPA, state/local laws).

SAFE HANDLING GUIDELINES:

- Only certified personnel may apply **pesticides or herbicides**. Unauthorized use is strictly prohibited.
- Always wear proper PPE: chemical-resistant gloves, goggles, long sleeves, respirators (if required).
- Read and follow the **Safety Data Sheet (SDS)** for each product before use.
- Mix chemicals in well-ventilated areas and never near water sources.
- Label all containers clearly. Never use food or drink containers for chemical storage.
- Store chemicals in a **locked, ventilated, and clearly marked area**, away from children and animals.

IN CASE OF EXPOSURE:

- **Skin contact**: Rinse immediately with water and remove contaminated clothing.
- **Eye contact**: Flush eyes for at least 15 minutes and seek medical attention.
- **Inhalation**: Move to fresh air and call for help if symptoms persist.
- **Ingestion**: Do not induce vomiting. Contact Poison Control or 911 immediately.

EMERGENCY PROCEDURES

*In any emergency, **remain calm** and follow these procedures:*

Fire or Explosion

- Activate the **nearest fire alarm**.
- Evacuate the area and assist others if safe to do so.
- Call **911** and notify the front office or designated safety officer.

Medical Emergencies

- Call **911** immediately for serious injuries.
- Provide **first aid or CPR** only if trained to do so.
- Report all injuries, even minor ones, to your supervisor **immediately**.

Severe Weather

- Seek shelter in a designated indoor location.
- Never operate equipment during electrical storms.

Chemical Spills

- Evacuate the area.
- Alert your supervisor and follow **spill containment procedures** (see SDS).
- Use proper absorbent material and PPE for cleanup. Dispose of waste in labeled containers.

Kern County Superintendent of Schools Grounds Inspection Standards

The following **levels of care** represent the outline by which all grounds work should be inspected and evaluated:

These performance standards do not constitute a complete description of the tasks and work outline for the Grounds job class.

5 = Outstanding

4 = Above Satisfactory

3 = Satisfactory

2 = Needs Improvement

1 = Unsatisfactory

PARKING LOTS

Level 5 – No accumulation of leaves, debris, clippings, or dirt in the parking lot. Routine sweeping of the parking lot performed leaving a groomed, cleaned appearance of hardscape.

Level 4 – Very little dust, trash, or natural debris visible in the parking lot.

Level 3 – Small amounts of trash and only a small amount of fresh, natural debris on the parking lots.

Level 2 – Trash and natural debris are visible.

Level 1 – Not blown off with excessive visible signs of trash and natural debris built up around the parking lot.

GRASS EDGED

Level 5 – All turf areas edged and groomed precisely along curb and straight, all clippings blown away, no scalping of the turf or breaking of sprinkler heads, no grass stains on walkways.

Level 4 – Most turf edged precisely to curb, sprinkler and/or object.

Level 3 – Somewhat manicured with some areas showing growth around curb, sprinkler and/or objects.

Level 2 – Un-manicured and/or completely overgrown.

Level 1 – Area never edged.

GRASS MOWED

Level 5 – All turf evenly mowed at appropriate height, no excess clippings on turf, no mulched debris on turf, all clippings blown, and no grass stains on concrete walkways.

Level 4 – Most turf evenly mowed, no scalping, light mulched debris or clippings.

Level 3 – Some signs of uneven mowing, scalping, some mulched debris or grass clippings.

Level 2 – Unmanicured, many areas overgrown.

Level 1 – Area never mowed.

DRY SPOTS IN TURF

Level 5 – Turf is completely and uniformly dark green, healthy, and absence of weeds. Turf areas have no dead spots. Irrigation has proper match precipitation and head-to-head coverage.

Level 4 – Turf is mostly uniform, green and healthy, very little weeds.

Level 3 – Turf is somewhat uniform, slightly yellow green with no spots of dead grass.

Level 2 – Turf contains some dead spots and/or signs of insufficient irrigation.

Level 1 – Turf contains multiple dead spots, including areas where dead grass has given way to dirt and/or weeds.

HEDGES / SHRUBS

Level 5 – All plant material is pruned in accordance with plant species, time of year, and growth season. All clippings and debris raked from underneath the plants. Plant species are healthy evidenced by color and no dead branches.

Level 4 – Most hedges/shrubs in sight are perfectly manicured and completely raked underneath leaves and trash.

Level 3 – Hedges/shrubs are manicured with little to no growth in sight, little to no leaves and/or trash underneath.

Level 2 – Hedges/shrubs show new growth with some trash and/or leaves underneath.

Level 1 – Hedges/shrubs are un-manicured, excessive growth and/or trash and debris underneath.

VISIBLE WEEDS

Level 5 – No visible weeds alive or dead in cracks, planters, fence lines, around trees, under seating areas, and general common areas.

Level 4 – Few visible weeds alive or dead.

Level 3 – Some visible weeds needing removal.

Level 2 – Many visible weeds, alive or dead needing removal.

Level 1 – Un-manicured many weeds, alive or dead.

WALKWAYS BLOWN OFF

Level 5 – All walkways are blown off appropriately in the absence of clippings, leaves, debris, dust and other objects.

Level 4 – Very little dust or debris visible on walkways.

Level 3 – Small amount of dirt and/or natural debris (leaves, trimmings) on walkways.

Level 2 – Some dirt and debris have built up on walkways.

Level 1 – Large amounts of dirt and debris have built up on walkways.

TREE CARE & MAINTENANCE

Level 5 – Trees are pruned accordingly based on species and industry standards. Trees appear healthy and no surface roots are present creating safety hazards. There are no suckers at the base of the tree. Tree species appear to be getting water.

Level 4 – Most trees are pruned accordingly; many species appear healthy with minimal surface roots. The majority appear to be getting water.

Level 3 – Trees are somewhat pruned. Some overgrowth exists on the trees with apparent surface roots. Some signs of irrigation to the trees.

Level 2 – Many trees require pruning. Some trees appear diseased with apparent surface roots. Suckers are at the base of the tree. Little signs of irrigation.

Level 1 – The majority of trees require pruning evidenced by overgrown canopies. Suckers are on the base of the tree. Most trees appear unhealthy. Trees do not appear to be getting water. Safety issues and concerns are evident.

PLANTER CARE & MAINTENANCE

Level 5 – Planter is properly cultivated with mulch material in place. No weeds present. Hedges and shrubs are pruned accordingly based on plant species. Turf areas mowed to appropriate height. Turf is edged and tall weeds are groomed around all objects. All clippings blown away.

Level 4 – Planter is mostly groomed with some weeds. Plant material is pruned proficiently. Sufficient mulch present in the planter.

Level 3 – Planter looks good with some weeds. Adequate mulch. Plant material has been trimmed recently.

Level 2 – Planter looks dirty with overgrown weeds, plants and turf. Little mulch present.

Level 1 – Planter is barren or dirty with dying turf and plants. Weeds present with no mulch. There are no signs that irrigation is functioning. Unsightly appearance.

1-2-3 STEPS

HOW CALIFORNIA REGISTERS PESTICIDES

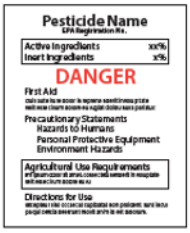
Are you planning to use a pesticide? You might be wondering if it's safe and effective?

That's where a process called "registration" comes in.

In California, there are two registration steps before a pesticide can be sold or used, plus a third step to ensure continued safety.

Step 1. The pesticide must be approved by the U.S. Environmental Protection Agency (or "EPA") for use anywhere in the U.S.

The EPA evaluates every pesticide product to ensure it won't harm human health or the environment. Approved products available for sale are labeled with instructions for safe use



Step 2. In California, the Department of Pesticide Regulation also evaluates pesticide products to ensure the instructions and precautions printed on the label protect human health and the environment with a focus on California-specific uses.

DPR can reject a product or approve it with more restrictive conditions than the EPA.

Step 3. To ensure the product is safe, DPR process called *continuous evaluation* to address new information about pesticide impacts after they are registered.

To do this, DPR monitors pesticides in the air, surface water, and ground water. The department also evaluates new scientific information.

If a problem is identified, DPR can place additional restrictions on a product or even cancel its registration, meaning it can no longer be used in California.

Remember: The instructions on the pesticide label are there to protect human health and the environment. The label is the law and must be followed by both individuals and commercial users.

DPR actively enforces these laws, working with counties and their Agricultural Commissioners to ensure regulations are followed.

Spraying

Applying pesticides requires a high level of skill and knowledge. Increases in the size and complexity of sprayers over the years require even more attention to efficiency, efficacy, and safety. Although each crop requires a slightly different approach to the application of pesticides, some general principles apply to almost all spraying situations. Following these principles will help achieve better control of the problem.

These major principles include:

1. Positive identification of the pest(s)
2. Selecting the pesticide specifically designed to control the identified pest(s)
3. Selecting the proper equipment, particularly the correct type and size of nozzle
4. Applying the pesticide at the right time and under the right conditions
5. Checking the accuracy of equipment (calibration) periodically to ensure the amount recommended on the pesticide label is applied uniformly onto the target

When applying pesticides, certain tasks are required for maximum biological efficacy. These include:

1. Uniform mixing of pesticides (especially dry products) in the sprayer tank. This can be accomplished only if the agitation system in the tank has sufficient capacity for its size and is operating properly.
2. Choosing a pump with sufficient capacity to deliver the required gallonage (gal/acre) to the nozzles
3. Ensuring hoses and fittings between the pump and nozzles are properly sized to minimize pressure losses
4. Ensuring minimum loss of pesticides as they are delivered from the nozzles to the target.
5. Attaining maximum retention of droplets on the target (minimum rebound)
6. Providing thorough and uniform coverage of the target with droplets carrying active ingredients.

Select the Best Nozzle Type for the Job

Although each component of the sprayer plays a role in achieving success in pesticide application, nozzles play the most significant role. Nozzles come in a wide variety of types and sizes. Each type is designed for a specific target and application. Most manufacturers' catalogs and websites have charts showing which nozzle type is best for a specific job. Any of the factors below may be the deciding one when selecting the most appropriate nozzle for the job.

- Sprayer operation parameters: application rate, spray pressure, ground speed
- Type of chemicals applied: herbicide, insecticide, fungicide, fertilizers, growth regulators
- Mode of action of the chemical for spray coverage requirement: systemic or contact
- Application type: broadcast, band, directed, air-assisted

- Risk of spray drift
- Requirements noted on pesticide labels

Choose the Appropriate Nozzle Size

Once you determine the best nozzle that will be best for a specific spraying situation, you need to determine the appropriate size of that nozzle size that provides the application rates (gal / acre) prescribed by product labels under various operating conditions (spray pressures and travel speeds).

Keep Spray Drift in Mind When Selecting Nozzles

Although complete elimination of spray drift is impossible, problems can be significantly reduced by awareness of the major factors that cause drift, while taking precautions to minimize their influence on off-target movement of droplets.

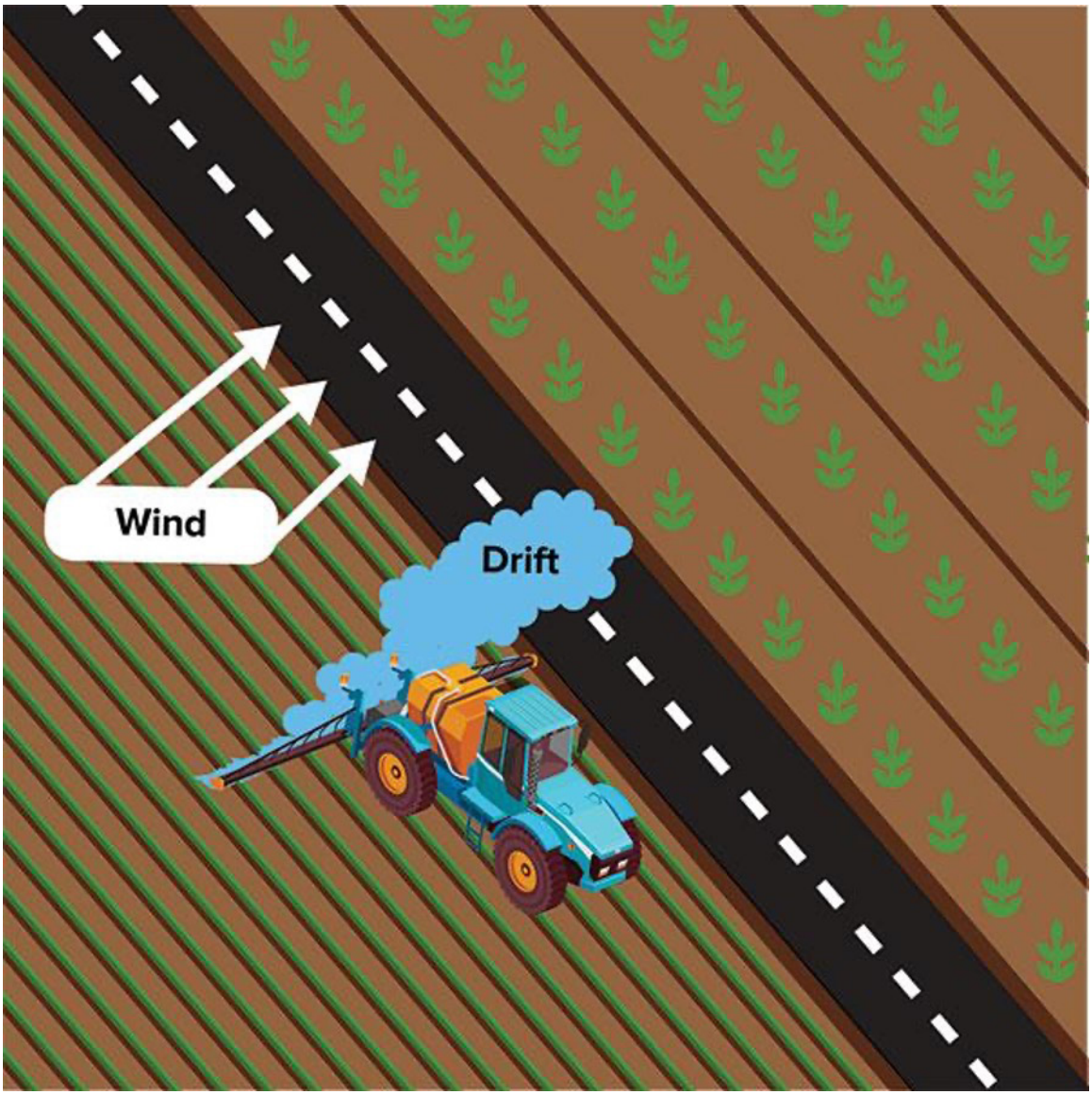
Follow these tips to minimize spray drift:

1. Nozzles play a significant role in generating as well as reducing spray drift. ASABE (American Society of Agricultural and Biological Engineers) developed a standard used by nozzle manufacturers to classify nozzles based on droplet size (spray quality) produced from nozzles at different spray pressures. Spray quality classes include: Extremely Fine, Very Fine, Fine, Medium, Coarse, Very Coarse, Extremely Coarse, and Ultra Coarse. Most nozzles used in agriculture produce droplets ranging from Fine to Very Coarse. Research clearly indicates nozzles producing spray qualities of Coarse or coarser significantly reduce spray drift, as discussed in OSU Extension publication FABE-523 "**Effectiveness of Turbodrop® and Turbo TeeJet® Nozzles in Drift Reduction**." However, if drift is not a concern, and the pesticides applied require maximum surface coverage of the target plant, using nozzles producing Medium spray quality will most likely provide better efficacy.
2. Keep nozzles as close to the target as possible while still producing a uniform distribution of spray on the target.

3. Consider using a sprayer equipped with air-assist technology on the spray boom. When used under fully or partially developed crop conditions, air flow coming out of the boom just behind the nozzles carries the small, drift-prone droplets into the canopy where they can be deposited.

4. Drift retardant chemicals designed to increase droplet size, and reduce the number of very small droplets can be added to the spray mixture. This option, however, should be the last defense against drift. Always consider other options, such as better targeting the spray and switching to low-drift nozzles.

5. If weather conditions (wind speed and direction, humidity, temperature, inversions) are not favorable, and there is concern about spray that might result in drift, wait until there is no longer that element of doubt. Review the forecast and schedule spraying accordingly. Use APPs that provide current, local wind conditions and estimate periods of time to spray or not to spray.



Maximize Pesticide Deposit and Coverage on the Target

To achieve effective pest control, choose the nozzle and set up the application equipment based on what is being controlled and the part of the plant canopy that is being targeted. For example, when applying a fungicide to manage Fusarium head blight or "head scab," on small grains, the target is the head, not the leaves. When a fungicide is applied using nozzles that direct the spray downward, most of the product is deposited on the leaves or the ground and not on the head. However, when trying to control diseases such as soybean rust, the target should be the leaves, especially ones in the lower part of the canopy. When spraying for soybean white mold, the most critical area that needs to be treated with fungicides is where flowering takes place. Nozzle selection has a significant influence on whether or not the droplets reach the specific target location in the canopy.

The following trends have emerged from two multi-year Ohio State studies on target deposition for diseases on soybeans and wheat:

- Nozzles and equipment setups that define droplet size as "medium" (approximately 250-350 micron diameter droplets), provide better penetration of droplets into lower parts of the canopy versus nozzles producing smaller or larger droplets. These are appropriate for both wheat and soybean canopies to control rust in wheat, and aphids and stem rot in soybeans. Stem rot usually starts from the lower part of the canopy, requiring treatment of that region with fungicides as early as possible.
- Compared to hollow cone nozzles, single pattern flat-fan nozzles producing medium size class droplets provide better penetration inside the soybean canopy when the canopy is dense.
- Spray deposition hitting the target from two different angles using nozzles producing twin spray patterns, such as a TwinJet, produces better coverage and deposition on upper parts of the soybean canopy. It can produce acceptable control of diseases in the lower part of the canopy if the canopy is not too dense. In dense soybean canopy conditions, twin pattern application provided the lowest coverage and deposits on lower parts of the canopy. Twin pattern nozzles or a single flat-fan nozzle tilted at a forward angle of 30 to 45 degrees down from the horizontal reference is definitely best for the application of fungicides for wheat head scab. It is, however, the worst setup for soybean insects and diseases, such as aphids and Sclerotinia stem rot (white mold).

Understand How to Calculate the Amount of Chemical Product to Mix in the Tank

Although your sprayer may be in good condition and calibrated frequently, if the correct amount of chemical is not put into the tank, it can still result in unsatisfactory pest control. Labels list two recommended application rates: volume of spray mixture (pesticide and water) applied per unit area (gallons per acre, ounces per 1,000 square feet, etc.), and the amount of actual chemical applied per unit area (ounces, pints, or quarts per acre or 1,000 square feet). The first recommendation (volume of spray per unit area) is attained through proper calibration and operation of the sprayer. The second label recommendation requires not only proper calibration and operation, but also the right concentration of the actual product applied.

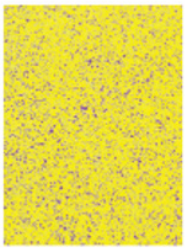
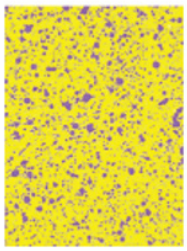
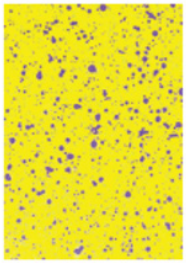
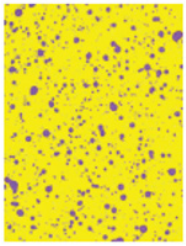
The amount of chemical needed per tankful depends on the recommended rate and the size of area that can be treated per tankful of spray. Calculations and concepts are the same whether using a manual backpack sprayer with a five-gallon tank, a lawn mower/ATV sprayer with a 15-gallon tank, a pull-type sprayer with a 500-gallon tank, or a 1,500-gallon self-propelled sprayer. The only difference is in units. For small sprayers, the rate may be expressed in ounces,

quarts, or gallons per 1,000 square feet. For boom sprayers, the application rate is usually given in gallons per acre (gpa).

Check Uniformity of Application

How the chemical is deposited is as important as the amount applied. Maintain uniform deposition of spray material across the entire width of the target area. Non-uniform coverage results from using misaligned or clogged nozzles, using nozzles with different fan angles, or from uneven nozzle height across the boom. These common problems result in streaks, untreated areas, or over-application of chemicals. Nozzles which produce uniform or "even" distribution of spray across the spray pattern (no tapering of spray closer to the edges of spray pattern) should be used when spraying products directly on targets, such as young vegetable seedlings in a narrow band for insecticide application, or the area between rows of vegetables for weed control. With these types of nozzles, no overlapping of spray patterns are required since the product is evenly distributed across the spray pattern. However, when making broadcast applications covering the entire area under the boom, the regular flat-fan nozzles should be used. These flat-fan broadcast nozzles produce spray patterns with heavy spray volume discharged from the center of the spray, and the volume tapers off towards both end of the triangular-shaped spray pattern. When using such flat-fan broadcast nozzles, spray patterns from adjacent nozzles must overlap to obtain uniform coverage across the spray swath, as shown in the figure above. A low boom or a boom set too high creates a poor pattern and misapplication. Check the nozzle catalog to determine the proper boom height recommended for different nozzle types and spacings.

Effects of Nozzle Type on Coverage

(Flow rate: 0.20 gpm)	Twinjet 11002	XR 8002	TurboTeejet 11002	Air Induction 110015
Spray Coverage				
Pressure	40 psi	40psi	40psi	70psi
Nozzle				
Droplet Size Class	Very Fine	Fine	Medium	Coarse

Make sure the nozzles are not fully or partially clogged. Clogging not only changes the flow rate, but also the spray pattern. Do not use a pin, knife or other metal object to unclog nozzles. This damages the nozzle orifice, causing changes in the flow rate and distortions such as streaks in the spray patterns. Use a soft brush, or pressured air to unclog nozzles. In addition to clogging, mismatched nozzle tips on the boom and uneven boom height are the most common causes of non-uniform spray patterns. They can all cause streaks or untreated areas that result in insufficient pest control and economic loss.

Read Product Label for Specific Recommendations and Requirements.

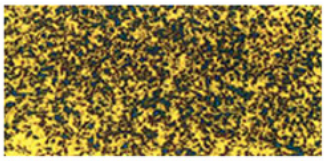
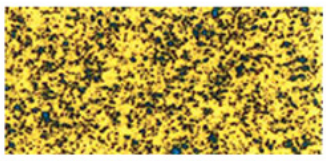
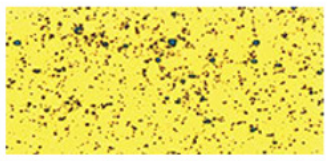
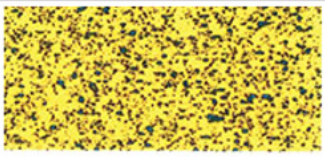
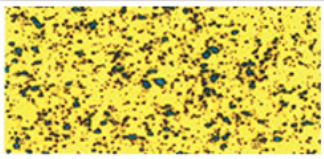
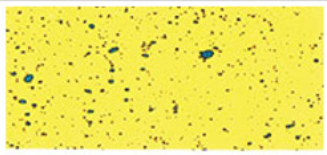
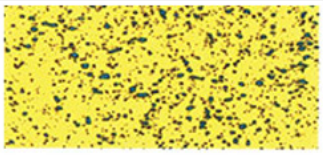
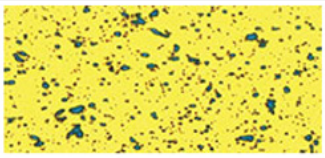
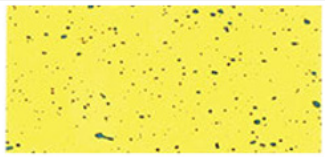
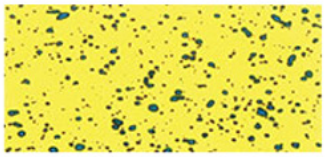
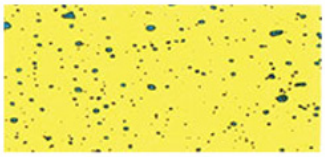
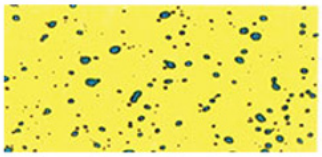
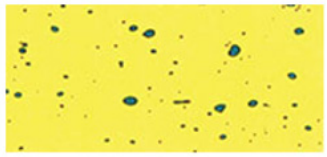
Most product labels outline some vague and general statements when referring to the application of products, such as “use nozzles that provide thorough coverage of the canopy.” There is no explanation about what “thorough coverage” represents or how to achieve it. It is your job to select a nozzle and operate it under certain pressure conditions to achieve “thorough coverage.” Some labels give specific recommendations on nozzles such as: “use nozzles that provide medium spray quality” or “do not use nozzles that produce droplets in coarse or larger spray qualities.” When there is this kind of specific information on the label, in addition to satisfying the gallon per acre requirement, also satisfy the droplet size requirement. Under these conditions, the operator’s job is to choose a nozzle type and size that satisfies the required droplet size while meeting other requirements such as gallons per acre application rate. For example, the nozzles shown in the figure below all produce the same flow rate (0.2 gallons per minute) at the same or slightly different pressures, but each provides a different spray quality (droplet size). Check the information given in nozzle manufacturers’ catalogs to make sure the nozzle provides the required spray volume at a given travel speed and spray pressure, as well as the spray quality (droplet size) under these same operating conditions.

Typically, systemic products do not require thorough coverage of the target, so coverage is not a significant issue when spraying them. However, contact-type products work best when applied evenly on the surface and coverage is maximized.

There are two options to improve coverage: 1) Increase the pressure. Higher pressures lead to creation of smaller droplets which provide improved coverage. 2) Increase spray application rate (gal/acre). When satisfying label requirements or recommendations related to coverage, in addition to the type and size of nozzle used, the rates of application can also help achieve higher levels of coverage. As shown in the following figure, regardless of the spray quality (droplet size) class, increasing the spray application rate increases product coverage.

Keep in mind that an increase in spray pressure always results in an increase in the spray volume contained in smaller droplets. This most likely results in higher levels of spray drift, especially when using conventional flat-fan or cone nozzles with smaller orifice sizes. Relying on increased pressure to improve spray coverage should be the last option, practiced only when the weather conditions are not conducive to increasing spray drift. The first option to improve spray coverage should be to select the right type and size of nozzles, followed by the next option, increasing the spray application rate.

Application Rate Affects Spray Coverage

Droplet Size	Application Rate: 12 gpa	Application Rate: 8 gpa	Application Rate: 4 gpa
Fine			
Medium			
Coarse			
Very Coarse			
Extra Coarse			

Summary of Recommendations

- Carefully read and follow the specific recommendations provided on the pesticide label, in nozzle manufacturers' catalogs, and sprayer operator's manuals.
- Calibrate the sprayer to ensure the amount recommended on the label is applied.
- Check the sprayer setup to ensure the amount applied is distributed evenly across the spray swath.
- If more than one type of chemical is added to the sprayer tank, check product labels to ensure mixing is done in the appropriate order.
- Conduct calibration of sprayer, mixing and loading of chemicals in areas without risk of ground/surface water pollution.
- Operate the nozzles at a pressure that allows them to produce the spray quality (droplet size) recommended on the product label.
- To achieve best coverage on the target, select the appropriate nozzles for the product, and if applicable (not restricted by the label) keep the spray volume (carrier application rate) above 15 gpa for ground and 5 gpa for aerial applications.

- Slow down when spraying. Spray coverage is usually improved at slower speeds. The higher the travel speed, the greater likelihood of spray drift.
- Probability of spray drift is much greater with fine to medium droplets than with coarser droplets.
- For herbicide applications, flat-fan nozzles are better than cone nozzles which tend to produce a much smaller proportion of extremely small, drift-prone droplets.
- Good coverage of just the top of the canopy may be sufficient for adequate pest control with some products. However, both horizontal and vertical coverage of the plant may be necessary for other situations, such as disease and insects that may be hidden in lower parts of canopies.
- Air-assisted sprayers usually provide better coverage and droplet penetration into the canopy, than conventional sprayers when there is a full, dense canopy, such as soybeans sprayed in late season.
- Be careful when using twin nozzle/pattern technology for application of fungicides. Two nozzles or spray patterns angled (one forward, one backward), work better when the canopy is not dense and tall, or when the target is the upper part of the canopy, such as with wheat head scab. Use single flow pattern nozzles under dense canopy conditions when penetration of droplets into the lower parts of the spray canopy is desired.
- Be safe. Wear protective clothing, goggles and rubber gloves, and respirators if required on the label, when calibrating the sprayer, doing the actual spraying, and cleaning the equipment.

KCSOS Grounds General Checklist

GENERAL GROUNDS

- Pressure wash paths, walls, and outdoor surfaces as needed.
- Trim trees and large shrubs away from buildings, lights, and pathways.
- Apply lawn fertilizer or treatments (seasonal, as per schedule).
- Check fence lines for damage or signs of unauthorized access..
- Inspect rain gutters and spouts. Clean and remove debris if needed.

PLAYGROUNDS & FIELDS

- Conduct a full safety audit of all play equipment.
- Replenish playground surfacing if needed.

FACILITIES COORDINATION

- Submit a weekly maintenance report to the Maintenance Manager.
- Review incident logs for recurring issues.
- Plan and schedule upcoming seasonal tasks (e.g., snow prep, spring planting).
- Update IPM forms

KCSOS Grounds Flower Beds Checklist

Weekly

- Check for litter or debris in flower beds.
- Water plants as needed (adjust based on weather and plant type).
- Inspect for visible signs of pests or disease (e.g., chewed leaves, discoloration).
- Remove any dead flowers or leaves (light deadheading).
- Weed all flower beds thoroughly.
- Inspect and adjust mulch coverage (ensure even depth and coverage).
- Trim back overgrowth or encroaching plants.
- Check soil moisture levels and irrigation efficiency.
- Stake or support tall plants as needed.
- Clean up fallen petals and organic matter to reduce pests.

Monthly

- Apply fertilizer or soil amendments (according to plant needs and season).
- Rotate or replace seasonal flowers (if applicable).
- Re-edge bed borders for neatness.
- Prune flowering shrubs or perennials (as seasonally appropriate).
- Conduct a visual design review: assess plant health, spacing, and visual appeal.
- Check labels or signage for plant names and condition (replace if missing or faded).

KCSOS Grounds Irrigation Checklist

Weekly

- Ensure valve boxes are clear of grass or any plant material so they are easily accessible.
- Check for obvious leaks or pooling water near sprinkler heads or valves.
- Visually confirm that scheduled zones are turning on and off correctly.
- Check for broken, misaligned, or clogged sprinkler heads in high-traffic areas.
- Ensure recently planted areas (e.g., new flowers or sod) are receiving appropriate watering.
- Inspect all sprinkler heads for proper spray patterns and pressure.
- Clean or unclog any blocked nozzles.
- Adjust heads to avoid overspray on sidewalks, buildings, or play areas.
- Check valve boxes for signs of damage, pests, or water accumulation.
- Review irrigation controller schedules and adjust for weather or seasonal changes.

Monthly

- Perform a full system run-through (each zone) during daylight hours for thorough inspection.
- Check for leaks in underground lines (look for soggy spots or low pressure).
- Review and document water usage to identify inefficiencies or spikes.
- Recalibrate timers or smart controllers for upcoming seasonal needs.
- Lubricate and inspect valves and moving parts as needed.
- Inspect drip irrigation zones (if present) for blockages or leaks.

Aurora Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Inspect lawns for weed control/fertilizer
- ☐ Tree limbs at walking height
- ☐ Valve cages cleaned and trimmed
- ☐ Debris swept and blown

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

Blanton Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Tree limbs at walking height
- ☐ Debris swept and blown

Blanton

- ☐ South fence (Truxtun) vines trimmed
- ☐ HVAC Cages cleaned out

Blanton CDC

- ☐ Weeds/Sucker removed in valve
- ☐ Behind classroom cleaned

East Site

- ☐ Weeds removed from Rain Gutters
- ☐ Debris swept and blown
- ☐ Weeds removed or sprayed along Alley
- ☐ Weeds removed or sprayed behind Classrooms

Bridges

- ☐ Weeds removed from Rain Gutters
- ☐ Weeds removed from behind buildings

Fairgrounds Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Inspect lawns for weed control/fertilizer
- ☐ Tree limbs at walking height
- ☐ Debris/Weeds behind classrooms
- ☐ Valve cages cleaned and trimmed
- ☐ Debris swept and blown

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Playground needs Sofall
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

Ming Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Inspect lawns for weed control/fertilizer
- ☐ Tree limbs at walking height
- ☐ Valve cages cleaned and trimmed
- ☐ Debris swept and blown

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Playground needs Sofall
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

North Kern Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Inspect lawns for weed control/fertilizer
- ☐ Tree limbs at walking height
- ☐ Valve cages cleaned and trimmed
- ☐ Debris swept and blown

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Playground needs Sofall
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

Richardson Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Tree limbs at walking height
- ☐ Debris swept and blown

Garden

- ☐ Weeds removed
- ☐ Gopher holes filled in

F-G-H-I Wings

- ☐ Weeds removed in any cages
- ☐ Sandbox/Sofall complaint

A-B-C-D Wings

- ☐ Gopher holes filled in
- ☐ HVAC and valve cages cleaned

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

SELPA Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Tree limbs at walking height
- ☐ Weeds checked in standing planters
- ☐ Debris swept and blown
- ☐ Valve cages cleaned and trimmed
- ☐ Debris swept and blown

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

School Services Center Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Tree limbs at walking height
- ☐ Valve cage near outside CNG cleaned
- ☐ Weeds checked in standing planters
- ☐ Debris swept and blown
- ☐ Trees not touching bus tops
- ☐ Weeds removed from behind warehoused
- ☐ Valve cages cleaned and trimmed

Preventative Maintenance

- ☐ Lawns needing fertilizer
- ☐ Lawns needing herbicide
- ☐ Site needs weed control
- ☐ Trees need large amount of trimming

Valley Oaks Checklist

Name: _____ Date: _____

Notes:

- ☐ All lawns mowed and edged
- ☐ Weeds cleared in islands and beds
- ☐ Tree suckers removed
- ☐ Bushes trimmed to height
- ☐ All weeds in cracks and joints
- ☐ Tree limbs at walking height
- ☐ Debris swept and blown

Elementary School

- ☐ Weeds removed from all Islands
- ☐ Trees trimmed to height

Parking Lot

- ☐ Tree suckers removed and trimmed to height

High School Side

- ☐ Front office hedges/vines trimmed
- ☐ HVAC and valve cages cleaned

Grounds

- ☐ All weeds trimmed in cracks and joints

KCSOS Grounds Equipment Checklist

DAILY (BEFORE OR AFTER USE)

All Equipment

- Inspect for visible damage, loose parts, or fuel/oil leaks.
- Clean off dirt, grass, and debris after use.
- Check safety guards and shields (ensure they are in place and functioning).
- Ensure air vents and cooling areas are clear.
- Test safety switches and triggers.
- Wipe down handles and grips for safety.

Fuel-Powered Equipment

- Check fuel level and refill with proper fuel mix if needed.
- Check oil level (for 4-cycle engines).
- Ensure gas caps are secure and not leaking.

Lawn Mowers

- Check tire pressure (for riding or zero-turn mowers).
- Inspect belts and cables for wear.
- Clean the mower deck (scrape off clumped grass).

Weed Eaters / Trimmers

- Check and replace trimmer line as needed.
- Clean air filter (lightly tap or blow out dust).
- Inspect shaft and guard.

Blowers / Hedge Trimmers / Edgers

- Inspect and tighten fasteners and attachments.
- Check and clean exhaust screen (for gas-powered models).
- Clean blades and lubricate before and after each use (hedge trimmers).

Battery-Operated Equipment

- Inspect battery for swelling or damage.
- Check charger connections.
- Clean battery contacts.

WEEKLY SERVICES

All Equipment

- Change engine oil (for 4-cycle engines) if needed.
- Clean or replace air filter.
- Inspect spark plug and clean or replace if needed.
- Check and tighten all nuts, bolts, and fasteners.
- Lubricate moving parts (hinges, wheels, throttle cables).
- Inspect handles and throttle controls for wear or play.

Storage Check

- Ensure all tools are stored in clean, dry, secure areas.
- Label and track maintenance dates for each item.
- Replace any worn or damaged safety equipment (gloves, goggles, etc.).
- Drain fuel or add stabilizer before off-season storage.
- Conduct a full inspection of backup or infrequently used tools.
- Inventory tools and parts; order replacements or spares as needed.

KCSOS Grounds Onboarding Checklist

WEEK 1 – TRAINING & SUPERVISION

Safety Overview

- Review safety policies and procedures
- Walkthrough of emergency exits, first aid kits, and eyewash stations
- Discuss incident and injury reporting process
- Provide PPE and review when/how to use it

Tools & Equipment Introduction

- Introduction to all basic equipment: mowers, trimmers, blowers, etc.
- Hands-on training with supervision
- Daily maintenance procedures for each tool
- Safe fueling and storage practices

Task-Specific Training

- Litter collection and waste disposal
- Lawn mowing and edging techniques
- Basic irrigation system awareness
- Playground and pathway inspection routine
- Flower bed maintenance basics
- Tree and shrub care overview

Systems & Reporting

- Review work order or task tracking system (digital or paper)
- Learn how to log maintenance issues or repairs
- Introduction to preventative maintenance schedules

WEEKS 2–4 – INDEPENDENT WORK WITH SUPPORT

- Assigned to routine tasks with limited supervision
- Begin learning advanced tools (riding mower, hedge trimmers, etc.)
- Observe full irrigation process
- Receive feedback from supervisor

END OF MONTH 1 – EVALUATION & GOAL SETTING

- Conduct 30-day performance check-in with supervisor
- Review strengths and areas for growth
- Answer questions or concerns from employee
- Set short-term goals and development plan

Equipment Operation

HOW TO OPERATE A RIDING OR STANDING LAWNMOWER

Pre-Operation Checks

- Check oil level and top off if needed
- Fill with fresh, proper fuel (unleaded or diesel).
- Inspect tires for proper inflation
- Remove any debris from under the deck
- Ensure all guards, shields, and covers are in place
- Adjust seat and steering controls
- Wear **PPE**: gloves, ear and eye protection, work boots

Operation

- Sit in the operator's seat and **engage the parking brake**.
- Make sure **PTO (blade switch) is off** and **transmission is in neutral**.
- Insert the key and **start the engine**. Allow a few minutes to warm up.
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off..
- Release the parking brake, select your mowing height, and engage the PTO to lower blades.
- ***Drive slowly and overlap slightly for full grass coverage***.
- Disengage PTO and brake before shutting off.

Safety Notes

- Never carry passengers.
- Keep feet on the platform and hands on the wheel.
- Be cautious around trees, fences, and playground equipment.

HOW TO OPERATE A CHAINSAW

Pre-Operation Checks

- Inspect the chain for proper tension and sharpness
- Fill bar oil reservoir and check fuel (40:1 or 50:1 mix)
- Inspect chain brake, throttle, and safety trigger
- Wear **PPE**: helmet, face shield, chainsaw chaps, gloves, work boots.

Operation

- Start on flat ground with the chain brake **engaged**.
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off.
- Hold the saw firmly with both hands.
- Disengage the chain brake only when ready to cut.
- Use the **lower part of the bar** for cuts. Avoid cutting with the tip to prevent kickback.
- Never raise the saw above shoulder height.

Safety Notes

- Never operate alone in remote areas.
- Stay clear of bystanders.
- Use two hands and maintain a stable stance.

HOW TO OPERATE A LEAF BLOWER (BACKPACK OR HANDHELD)

Pre-Operation Checks

- Check fuel level (mixed gas if 2-stroke)
- Inspect air filter and spark plug
- Check throttle trigger and tube for obstructions
- Wear **hearing protection**, goggles, and dust mask

Operation

- Start in a clear area away from buildings or people.
- Prime the engine, set the choke, and pull the starter cord.
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off.
- Adjust throttle as needed.

- Walk with the blower **angled slightly down and to the side**.
- Use a side-to-side motion to move debris into piles.

Safety Notes

- Never blow debris toward people, cars, or open doors/windows.
- Avoid use in high winds or during quiet school hours if possible.

HOW TO OPERATE A STRING OR HEDGE TRIMMER

Pre-Operation Checks

- Check fuel level (mixed gas if 2-stroke)
- Inspect air filter and spark plug
- Check throttle trigger and tube for obstructions
- Wear **hearing protection**, goggles, and dust mask

Operation

- Start in a clear area away from buildings or people.
- Prime the engine, set the choke, and pull the starter cord.
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off.
- Adjust throttle as needed.
- Use a side-to-side motion to move debris into piles.

Safety Notes

- Angle the trimmer so debris is not thrown towards people, cars, or open doors/windows.

HOW TO OPERATE A ROTOTILLER

Pre-Operation Checks

- Check oil and fuel
- Ensure tines are clear of debris
- Check tire pressure (if applicable)
- Wear **PPE**: gloves, ear and eye protection, work boots

Operation

- Start the engine with choke on (as needed), then reduce choke after start.
- Select forward gear (low speed for beginners or dense soil).
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off.

- Slowly **engage the tines** and lower into the soil.
- Let the tiller pull itself forward slowly—do not force it.
- Make multiple shallow passes rather than one deep one.

Safety Notes

- Never reach under the tiller while it's running.
- Avoid tilling over roots, wires, or irrigation lines.

HOW TO OPERATE A LAWN AERATOR

(Instructions are for **walk-behind**, **core/plug aerator**)

Pre-Operation Checks

- Check oil and fuel
- Inspect tines for wear or damage
- Clear the lawn of debris, rocks, and irrigation heads
- Wear **PPE**: gloves, ear and eye protection, work boots

Operation

- Start the engine and allow it to warm up.
- Use the **cold start procedure**: choke on, primer bulb pressed, pull cord until ignition, then switch choke off.
- Engage the tines (lever or switch depending on model).
- Begin walking in a straight line across the lawn.
- Overlap passes slightly for full coverage.
- Disengage tines and throttle down before turning or reversing.

Safety Notes

- Never aerate on overly dry or soggy ground.
- Avoid steep slopes and heavily compacted ground without proper technique.
- Mark sprinkler heads and shallow utility lines before use.

KCSOS Maintenance and Grounds Shop Cleaning Checklist

DAILY CHECKLIST

Purpose: Maintain cleanliness, prevent accidents, and improve productivity.

General Cleaning

- Sweep floors to remove dirt, dust, and debris
- Empty all trash bins
- Wipe down high-touch surfaces (light switches, door handles, toolboxes)
- Clean workbenches and clear off unused tools or parts
- Return all tools and equipment to designated storage
- Clean up any spills or leaks immediately (oil, grease, fluids)
- Inspect entryways for dirt buildup or obstructions

Safety & Hazards

- Check that vehicle fire extinguishers and first aid kits are visible and accessible
- Ensure exit routes and emergency exits are clear
- Inspect floors for trip hazards (cords, clutter, uneven surfaces)

WEEKLY CHECKLIST

Purpose: Address deeper cleaning and reorganization tasks.

Floors & Surfaces

- Mop floor with degreaser or shop-safe cleaner
- Wipe down and sanitize shared tools and equipment
- Dust shelves, window sills, light fixtures, and equipment tops
- Clean sinks, breakroom counters, and rest areas (if applicable)

Tools & Equipment

- Inspect and clean frequently used tools (e.g., power tools, air hoses)
- Organize shelves, bins, and drawers; return misplaced items
- Check tool tags or inventory system for missing or damaged items

Storage & Safety

- Dispose of old rags, oily towels, and flammable waste in proper containers
- Restock cleaning supplies, PPE, and paper goods
- Ensure all chemicals are stored in labeled, secure containers
- Test shop ventilation fans or filters

MONTHLY CHECKLIST

Purpose: Deep cleaning, safety compliance, and preventive care.

Deep Cleaning

- Clean walls, vents, and ceiling fans
- Empty and clean out storage cabinets and drawers

Equipment & Shop Maintenance

- Inspect shop lighting and replace bulbs as needed
- Clean air compressor, pressure washer, or other stationary equipment
- Clean and calibrate measuring tools or torque wrenches

Inventory & Records

- Conduct a full tool inventory check
- Review cleaning supply stock levels and reorder
- Update maintenance log for repairs or improvements needed
- Inspect MSDS/SDS binders for accuracy and completeness

Authority and Responsibility

HR Director or his or her designee is responsible for:

- Identifying all job classifications required to work primarily outdoors where the environmental risk factors for heat illness are present.
- Providing training applicable to employees working in identified job classifications on basic heat illness prevention, signs and symptoms of heat illness, and emergency response procedures, including High Heat Procedure training to those impacted.
- Maintaining and updating the list of all impacted job classifications and providing it upon request.
- Maintaining training records per CalOSHA standards.
- Providing training and compliance assistance to supervisors of identified job classifications and evaluating suggestions and improvements to this plan annually or more frequently if needed.

Supervisors or designees are responsible for:

- Staying aware of the most current and accurate meteorological information (ambient temperature and relative humidity) in areas where employees will be assigned to work outdoors.
- Encouraging employees through various forms of communication to utilize free potable water sources available to all KCSOS employees to fill personal water jugs and/or work truck water containers as needed to maintain sufficient levels of drinkable water throughout the workday (i.e. at least one quart per hour of work per employee.)
- Ensuring employees have access to hazard-free shaded areas available at job sites when the environmental risk factors for heat illness are present for breaks and preventative cool-down rest periods. Informing employees to utilize air-conditioned buildings or vehicles in lieu of shade if none is available at a jobsite.
- Alerting and directing emergency medical services (EMS) immediately if required, or, if EMS is not required, offering medical treatment through the established workers' compensation process.
- Coordinating immediate in-person monitoring of an employee experiencing signs and symptoms of heat illness in a cool, shaded area with access to potable water while EMS is on its way, while non-emergency care is being coordinated, or while first aid is being rendered. Ensuring that the affected employee is offered medical treatment.
- Collecting employee reports of illness and injury, completing supervisor reports of illness and injury, and sending both reports to the Human Resources Specialist if a heat illness event occurs.
- Ensuring communication devices like radios are working properly before each shift if applicable, keeping lines of communication open with employees who are working in the heat, and being aware of where employees are located while on the job.
- Ensuring that all the requirements in this plan are followed.

Employees are responsible for:

- Understanding that immediate responsibility for heat illness prevention and safety rests with each individual employee.
- Following established work procedures and safety guidelines for each area, as well as those defined by this plan.
- Carrying, refilling, and drinking adequate amounts of potable water by utilizing drinking water available at KCSOS facilities in the amount of one quart per hour per employee.
- Utilizing hazard-free shade or air-conditioned buildings or vehicles for breaks, preventative cool-down periods, and meal breaks when the temperature is above 80 degrees Fahrenheit.
- Recognizing signs and symptoms of heat illness and taking appropriate action as defined by annual training.
- Reporting unsafe conditions immediately to supervisors, Human Resources, or by visiting the KCSOS Occupational Health and Safety website to make an anonymous report.
- Staying in communication with coworkers and supervisors as needed while working in the heat. In the event of an emergency, use communication devices to contact EMS and report to supervisor and coworkers that assistance is needed.
- Reporting unplanned work location changes to supervisor immediately.
- Reporting any heat illness event to the supervisor and completing employee injury reports as required.
- Calling for EMS and following emergency procedures when needed.

Drinking Water

Water is a key preventative measure in minimizing the risk of heat illnesses. Potable water is available and accessible to all KCSOS employees. All employees are responsible for drinking water regularly and staying properly hydrated. All employees are responsible for keeping personal water jugs and/or work truck water containers free of contamination and at sufficient levels defined as at least one quart per hour per employee, by using the potable drinking water sources provided by KCSOS.

In accordance with CalOSHA standards, the following procedures are in place for employees working in identified job classifications:

- When temperatures are predicted to be above 80 degrees Fahrenheit, supervisors (or designees) of employees working in identified job classifications shall encourage and remind employees through various forms of communication to fill personal water jugs and water containers to capacity with water while present at KCSOS worksites.
- Employees utilizing water containers on work trucks are responsible for keeping them full of water and reporting low water levels or contaminated water to supervisors while out in the field.
- Employees should consume water regularly throughout the day, on breaks and meal periods, and may also take preventative cool-down rest periods to drink water.

Access To Shade

Shade is available and easily accessible at most KCSOS worksites and employees are required to utilize hazard-free shaded areas for break, meal, and preventative recovery periods when the temperature is above 80 degrees Fahrenheit. When shade is not readily available, employees must utilize air-conditioned vehicles or buildings for break, meal, and preventative recovery periods. If employees are scheduled to work at a site with no access to shade nor an air-conditioned vehicle, supervisors will make arrangements to provide shade through other means, like providing a pop-up to be carried on a work truck for employees to deploy when needed.

When temperatures are predicted to be above 80 degrees Fahrenheit, supervisors (or designees) shall remind employees through various forms of communication about the importance of rest breaks and ensure employees are aware of shaded locations at worksites.

Procedures

- All employees will be provided the Heat Illness Prevention Policy upon hire. • Employees working in identified job classifications with job duties that include regular exposure to the heat above 80 degrees Fahrenheit will receive annual heat illness prevention training.
- New employees in identified job classifications will receive training upon hire if assigned work includes immediate and regular exposure to heat above 80 degrees Fahrenheit.
- Supervisors (or designees) of employees in identified job classifications will do the following:
    - Receive annual training on how to recognize symptoms of heat related illness, how to monitor weather and identify periods of heat waves, and the need to inform assigned employees of this information.
    - Be aware of work locations of assigned employees in the course of the work day in order to respond quickly to a heat related event and properly direct EMS to affected employees if needed.
    - Monitor assigned employees for signs and symptoms of heat related illnesses during acclimatization periods and heat waves through frequent communication through radios where applicable and by utilizing the buddy system.
    - Keep open lines of communication and ensure that employees have effective means of contacting EMS if needed.
    - Review emergency procedures with employees periodically in addition to annual training, including reminding employees to be aware of worksite addresses and/or clear and precise directions to worksite to properly inform emergency personnel if needed.

Emergency Response Procedures

When there is significant risk of heat illness present, all employees shall adhere to the following emergency response procedures:

- Employees shall inform supervisor or designee about unplanned location changes to ensure supervisor (or designee) is aware of employee location.
- Employees exhibiting signs or symptoms of heat illness, or who observe a co-worker with signs or symptoms, shall report these symptoms to their supervisor (or designee)

immediately. In the event of an emergency (i.e. employee incoherent, showing signs of heat stroke, or unconscious), employees are to first contact EMS and alert supervisor (or designee) second.

- Upon a report of heat illness signs or symptoms, the supervisor (or designee) will take immediate action including involving other employees to evaluate the severity of the illness and monitor the employee in a cool, shaded place with access to drinking water. The supervisor (or designee) shall offer first aid, medical care through the workers' compensation process, or EMS when needed.
- If an employee exhibits signs of heat stroke, the first person to recognize these symptoms shall call EMS immediately. All employees are authorized to contact EMS in the event of an emergency. The supervisor should be notified as soon as it is reasonable.

Acclimatization

- All identified job classifications shall be closely monitored by a supervisor (or designee) during a heat wave which is defined by any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days. This should be accomplished by utilizing frequent varying forms of communication, designee supervision, or the buddy system.
- The supervisor (or designee) will monitor newly hired employees working in the heat closely during the first 14 days through frequent and varying forms of communication, designee supervision, or the buddy system with reminders to take preventative measures to avoid heat illness.

High Heat Procedures

Any employees, including supervisors, working in or overseeing job classifications that are subject to high heat procedures as defined by CalOSHA, will be provided additional training specific to extreme heat (95 degrees Fahrenheit or above).

When the temperature equals or exceeds high heat levels of 95 degrees Fahrenheit or above, the following procedures will apply to identified job classifications. The supervisor (or designee) will:

- Hold pre-shift meetings if feasible to review high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest periods in shade when necessary.
- Ensure effective communication by voice, observation, and electronic means with employees is maintained throughout shifts. This includes the use of the buddy system or designee observation, and frequent communication through various means.
- Ensure employees are observed for signs and symptoms of heat illness through various methods, including, but not limited to, the buddy system and/or regular communication with radios or cellphones.
- Remind employees throughout the work shift to drink plenty of water, refill jugs and water containers, and take breaks in the shade.
- Ensure that all employees understand that they are authorized to call EMS when needed.

Training

Heat Illness Prevention Training shall include:

- The procedures detailed in the Heat Illness Prevention Plan.
- Personal and environmental risk factors for heat illness.
- The concept, importance, and methods of acclimatization.
- The importance of frequent hydration with cool water before, during, and after their shift.
- The different types of heat illness, common signs and symptoms, and the appropriate first aid and/or emergency responses to the different types of heat illnesses.
- The rapid progression of mild to life threatening heat illness.
- The importance of communication during high temperatures and the requirement to report signs and symptoms immediately.
- The procedures to respond to possible heat illness, and how EMS will be contacted and directed to the injured or ill employee if necessary.

In addition to the topics above, supervisors of identified job classifications shall also receive training on the following topics:

- Procedures to follow in order to implement the provisions of this program.
- Procedures to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- How to monitor weather reports to determine if dangerous conditions or heat waves are present and how to use the heat index chart to determine conditions.

Resources

- KCSOS Website
  www.kern.org

- Internal KCSOS Website
  https://internal.kern.org/

- KCSOS Classified Employee Handbook
  https://internal.kern.org/wp-content/uploads/2024/05/HANDBOOK24_ClassifiedEmployees-1.pdf

- SOSCA
  https://sites.google.com/joinsosca.org/joinsosca/home/

- SISC Mental Wellness Website
  https://internal.kern.org/mental-wellness/

- Employee Assistance Program
  https://internal.kern.org/wp-content/uploads/2021/03/EAP_General_Program_flyer_w_phone_number_and_website.pdf

- Vehicle Accident Report Form
  https://internal.kern.org/wp-content/uploads/2018/10/Vehicle-accident-report.pdf

- Grounds Worker I Job Description
  https://kern.org/human-resources/wp-content/uploads/sites/2/2014/01/Grounds-Worker-I.pdf

- Grounds Worker II Job Description
  https://kern.org/human-resources/wp-content/uploads/sites/2/2014/01/Grounds-Worker-II.pdf

- Backpack Sprayer Jacto PJBc Operator's Manual
  https://www.gardeners.com/globalassets/articles/gardening/productspdfs/8613028_jacto-pjb-8c-battery-powered-shoulder-carry-sprayer---owners-manual.pdf?srsltid=AfmBOooYX0sD6nRY3oefdFJv5tYYqanzRUX8hshy5LXBIeqNrl1v-xeF

KCSOS
Kern County Superintendent of Schools
Office of John G. Mendiburu, Ed.D.— Advocates for Children

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