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PRESIDENT'S MESSAGE

In the Milwaukee area, the Summer of '81' could be summed up in one word: moisture! When it wasn't raining, its been warm and humid. We've all seen our share of dollar spot and even a little pythium.

Well, Labor Day is upon us and Autumn promises cooler nights, lower humidity, pleasant days, and fewer golfers. You're right! It is too good to be true.

The Wisconsin Golf Course Superintendents Association has a few meetings left this year, including our annual golf tournament at Wausau C.C. If you haven't made any meetings yet, please try and attend. It would be great to wind up our season with a good turnout at each meeting.

We've had some difficulty trying to get an accurate count for dinner at our meetings. Please be sure to send in your reservation card. If we can't get a better count with our present system, we'll be forced to initiate a pre-pay program for next year.

Jim Belfield

WGCSA 1981 MEETINGS

September 21	O. J. Noer Golf Tournament Ozaukee Country Club 10823 North River Road Mequon, Wisconsin 53092	Wayne Otto 414-242-0142
September 28	Wausau Country Club 208 Country Club Road Schofield, Wisconsin 54476	Walt Stepanik 715-359-3223
October 12	Kettle Moraine Golf Club 4299 Highway 67 Dousman, Wisconsin 53118	Dewey Laak 414-965-2423



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WHAT TO DO IN CASE OF FIRE

The following article was written by R. H. Kauffman, a firefighter specialist of the Los Angeles Fire Department. It has been distributed by DuPont to its traveling employees as part of the company's safety program. It is reprinted here, slightly edited, for whatever use you may wish to make of it.

* * *

I have been a firefighter in Los Angeles over 10 years and have seen many people die needlessly in building fires. It's sad because most could have been saved themselves.

I do not intend to "play down" the aspects of hotel fires or soft soap the language. It's critical that you remember how to react, and if I shake you a little, maybe you will.

Contrary to what you have seen on television or in the movies, fire is not likely to chase you down and burn you to death. It's the bi-products of fire that will kill you. Super-heated fire gases (smoke) and panic will almost always be the cause of death long before the fire arrives, if it ever does. This is very important. You must know how to avoid smoke and panic to survive a hotel fire. With this in mind, here are a few tips:

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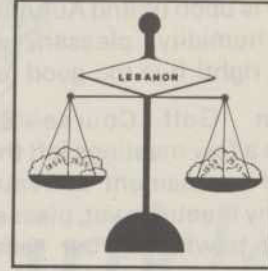


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EXITS

The elevator drops you at the 12th floor, and you start looking for your room. "Let's see...room 1226...ah, here it is." You open the door and drop your luggage. AT THAT VERY MOMENT! turn around and go back into the hallway to check your exit. You may NEVER get another chance. Don't go to the bathroom, open the drapes, plop spread-eagle on the bed, turn on the T.V. or untuck your shirt. I know you're tired and want to relax, but it's absolutely essential...no...CRITICAL that you develop the HABIT of checking your exit after you drop your luggage. It won't take 30 seconds and believe me, you may NEVER get another chance.

If there are two of you sharing a room, BOTH of you locate your exit. Talk it over as you walk towards it. Is it on the left or right?...Do you have to turn a corner?...Open the exit door, what do you see? Stairs or another door? (Sometimes there are two doors to go through, especially in newer hotels.) As you return to your room, count the doors, is it the sixth or seventh door?...I'd hate to see you crawl into a broom closet thinking it was the exit. Are you passing any rooms where your friends are staying?...If there was a fire, you may want to bang on their doors as you go by. Is there anything in the hallway that would be in your way?...an ice machine maybe? As you arrive back at your room, take one more look. Get a mental picture of what everything looks like. Do you think you could get to the exit with a "blindfold" on?

USING THE EXITS

Should you have to leave your room during the night, it's important to close the door behind you. This is very effective in keeping out fire and will minimize smoke damage to your belongings.

Always take your key with you. Get into the habit of putting the key in the same place every time you stay in a hotel. Since every hotel has nightstands, that's an excellent location. It's close to the bed so you can grab it when you leave without wasting time looking for it. It's important that you close your door as you leave, but it's equally important you don't lock yourself out. You may find conditions in the hallway untenable and want to return to your room.

If you're now in the habit of checking your exit and leaving the room key on the nightstand, you're pretty well prepared to leave the hotel in case of a fire, so let's "walk" through it once.

Something will awake you during the night. It could be the telephone, someone banging on the door, the smell of smoke, or some other disturbance. Whatever it is, investigate it before you go back to sleep. A popular "Inn" near LAX recently had a fire and one of the guests later said he was awakened by people screaming, but went back to bed thinking it was a party. He damned near died in bed.

Let's suppose you wake up to smoke in your room. Grab your key off the nightstand, roll off the bed and head for the door on your hands and knees. Even if you could tolerate the smoke by standing, don't. You'll want to save your eyes and lungs as long as possible. BEFORE you open the door, feel it with the palm of one hand. If the door or knob is quite hot, don't open it. The fire could be just outside. We'll talk about what to do here a little later. With the palm of your hand still on the door (in case you need to slam it shut), slowly open the door and peek into the hallway to "assess conditions".

As you make your way to the exit, stay against the wall on the side where the exit is. It's very easy to get lost or disoriented in a smoky atmosphere. If you're on the wrong side of the hallway, you might crawl right on by the exit. If you're in the middle of the hall, people who are running will trip over you. Stay on the same side as the exit, counting doors as you go. When you reach the exit and begin to descend, it's very important that you WALK down and hang on to the handrail as you go. Don't take this point lightly. The people who will be running will knock you down, and you might not be able to get up. Just hang on and stay out of everyone's way. All you have to do now is leave the building, cross the street and watch the action. When the fire is out and the smoke clears, you will be allowed to re-enter the building. If you closed your room door when you left, your belongings should be in pretty good shape.

Smoke will sometimes get into the exit stairwell. If it's a tall building, the smoke may not rise very high before it cools and becomes heavy. This is called "stacking". If your room is on the 20th floor, for instance, you could enter the stairway and find it clear. As you descend, you could encounter smoke that has "stacked". Do not try to "run through it" -- people die that way. Turn around and walk up. Now you must really hang on to the handrail. The people running down will probably be glassy-eyed and in a panic and will knock you right out of your socks. They will run over anything in their way, including firemen.

You'll feel as though you're going upstream against the Chicago Bears, but hang on and keep heading up toward the roof. If for some reason you try one of the doors to an upper floor and find it locked, that's normal, don't worry about it. Exit stairwells are designed so you cannot enter from the street or roof. Once inside, however, you may exit at the street or roof but cannot go from floor to floor; this is done for security purposes. When you reach the roof, prop the door open with something. This is the ONLY time you will leave a door open. Any smoke in the stairwell can now vent itself to the atmosphere, and you won't be locked out. Now find the windward side of the building (the wet finger method is quite reliable), have a seat and wait until they find you. Roofs have proven to be a safe secondary exit and refuge area. Stay put. Firemen will always make a thorough search of the building looking for bodies. Live ones are nice to find.

YOUR ROOM

After you check your exit and drop the key on the night stand, there is one more thing for you to do. Become familiar with your room. See if your bathroom has a vent; all do, but some have electric motors. Should you decide to remain in your room, turn it on to help remove the smoke. Take a good look at the window in your room. How does it open?...Does it have a latch?...A lock?...Does it slide? Now open the window (if it works) and look outside. What do you see?...A sign?...Ledges?...How high up are you? Get a good mental picture of what's outside, it may come in handy. It's important you know how to OPEN your window. You may have to close it again.

Should you wake up to smoke in your room and the door is too hot to open or the hallway is completely charged with smoke, don't panic. Many people have defended themselves quite nicely in their rooms and so can you. One of the first things you'll want to do is open the window to vent the smoke. I hope you learned how to open it when you checked in, it could be dark and smoky in the room; those who didn't, will probably throw a chair through the window. If there is smoke outside and you have no window to close, it will enter your room and you will be trapped. The broken glass from the window will cut like a surgeon's scalpel.

If there is fresh air outside, leave the window open, but keep an eye on it. At this point, most people would stay at the window, waving frantically, while their room continues to fill with smoke or the fire burns through. This procedure is not conducive to longevity. You must be aggressive and fight back. Here

are some things you can do in any order you choose. If the room phone works, let someone know you're in there. Flip on the bathroom vent. Fill the tub with water. (Don't get in it, it's for firefighting. You'd be surprised how many people try to save themselves by getting into a tub of water; that's how you cook lobsters and crabs, so you know what happens.) Wet some sheets or towels and stuff the cracks of your door to keep out smoke. With your ice bucket, bail water from the bathtub on to the door to keep it cool. Feel the walls; if they're hot, bail water on them too. You can put your mattress up against the door and block it in place with the dresser. Keep it wet; keep everything wet.

Who cares about the mess. A wet towel tied around your nose and mouth is an effective filter. If you fold it in a triangle and put the corner in your mouth. If you swing a wet towel around the room, it will help clear the smoke. If there is fire outside the window, pull down the drapes and move everything that's combustible away from the window. Bail water all around the window. Use your imagination, and you may come up with some tricks of your own. The point is, there shouldn't be any reason to panic; keep fighting until reinforcements arrive. It won't be long.

ELEVATORS

There isn't an elevator made that can be used as a "safe" exit. In all 50 states, elevators, by law, cannot be considered an "exit". They are complicated devices with a mind of their own. The problem is most people only know one way out of a building, the way they came in. If it was the elevator, they're in trouble.

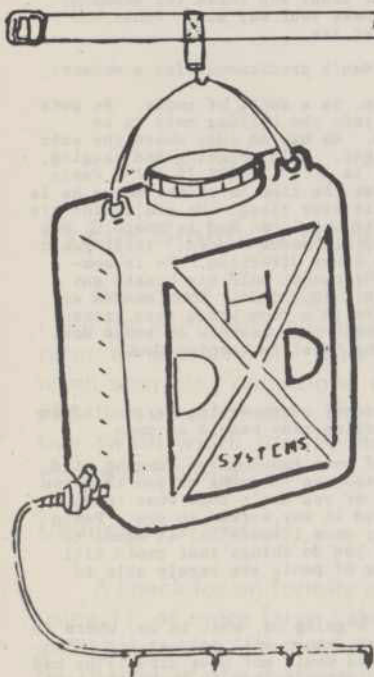
If you have any idea that there might be smoke or fire in your hotel, avoid the elevator like the plague.

JUMPING

It's important I say something about jumping because so many people do it. Most are killed or injured in the process. I cannot tell you whether or not you should jump. Every fire, although similar, is different. I can tell you, however, what usually happens to "jumpers".

If you're on the 1st floor, you could just OPEN the window and climb out. From the second floor, you could probably make it with only a sprained ankle, but you must jump out far enough to clear the building. Many people hit window sills and ledges on the way down, and they go into cartwheels. If they don't land on their

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SMOKE

Where there is smoke, there is not necessarily fire. A smoldering mattress, for instance, will produce a great amount of smoke. Air conditioning and air exchange systems will sometimes pick up smoke from one room and carry it to other rooms or floors. You should keep that in mind because 70 percent of the hotel fires are caused by smoking and matches. In any case, your prime objective should be to leave the hotel at the first sign of smoke.

Smoke, being warmer, will start accumulating at the ceiling and work its way down. The first thing you will notice is THERE ARE NO "EXIT" SIGNS. I'll talk more about exits later; just keep in mind when you have smoke, it's too late to start looking for "exit" signs.

Another thing about smoke you should be aware of is how irritating it is on the eyes. The problem is, your eyes will take only so much irritation, then they close. Try all you want, you won't be able to open them if there is still smoke in the area. It's one of your body's compensatory mechanisms.

Lastly, the fresh air you want to breathe is at or near the floor. Get on your hands and knees (or stomach) and STAY THERE as you make your way out. Those who don't probably won't get far.

Think about this poor man's predicament for a moment:

He wakes up at 2:30 a.m. to a smell of smoke. He puts on his pants and runs into the hallway only to be greeted by heavy smoke. He has no idea where the exit is. He runs to the right. He's coughing and gagging, his eyes hurt. "Where is it?" "WHERE IS IT?" Panic begins to set in. About the time he thinks maybe he is going the wrong way, his eyes close. He can't find his way back to his room (it wasn't so bad in there). His chest hurts, he desperately needs oxygen. Total panic sets in as he runs the other direction. He is completely disoriented. He cannot hold his breath any longer. We find him at 2:50...dead. What caused all the smoke? A small fire in a room where they store roll-away beds. Remember, the presence of smoke does not necessarily mean the hotel is burning down.

PANIC

PANIC (pan'ik) n. A sudden, overpowering terror, often affecting many people at once.

Panic is the product of your imagination running wild, and it will set in as soon as it dawns on you that you are lost, disoriented, or you don't know what to do. Panic is contagious, and it may spread to you. Panic is almost irreversible; once it sets in, it seems to grow. Panic will make you do things that could kill you. People in a state of panic are rarely able to save themselves.

If you understand what's going on, what to do, where to go, and how to get there, panic will not set in. The man in the example I used would not have died if he had known what to do. For instance, had he known the exit was to the left and four doors down on the left, he could have gotten on his hands and knees where there was fresh air and started counting doorways. Even if he couldn't keep his eyes open, he could feel the wall as he crawled, counting the doors. One...Two...Three... BINGO! He would NOT have panicked. He would be alive today telling of his "great hotel fire" experience.



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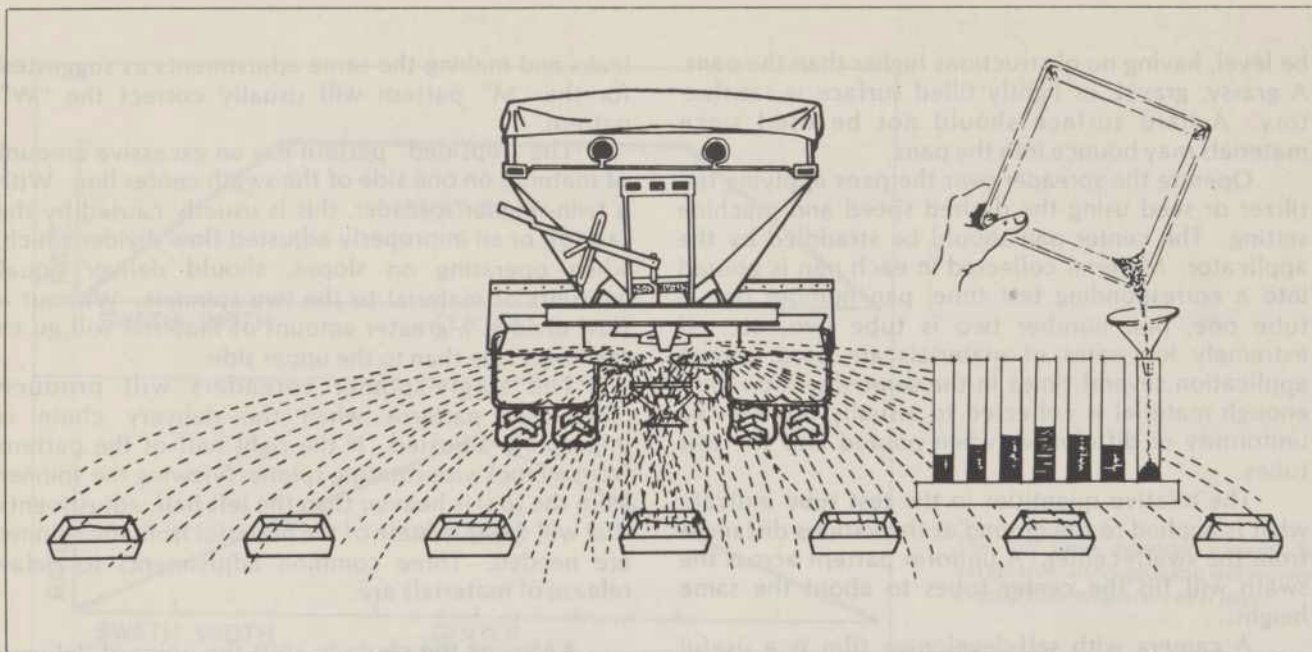
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This drawing gives a general idea of how to arrange your collection pans and the cylinders used to measure the levels. Actually, though, you will need 11 or more trays, not the seven shown in the drawing.

Straighten up and spread right

Guide for measuring, correcting, calibrating broadcast spreaders

By E.S. Smith, D.D. Wolf, and M. Lentner

Broadcast spreaders should be checked periodically for uniformity of spreading pattern and proper rates of application. This is especially important when operating conditions, materials, or rates of application are changed. The travel pattern and effective swath width for the most uniform application should be considered.

Uniformity of spread

A check for uniformity of spread may be done by using 11, or more large cake baking pans or plastic greenhouse trays of equal size. A baffle sheet should be placed in the bottom of each tray to prevent ricochet loss of particles. The baffle can be made from $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ inch grid, such as used under light fixtures in suspended ceilings. This grid material is

commonly available from electrical and building supply dealers in 2 by 4 foot plastic sheets that can be easily cut with a saw to the desired pan dimensions. Terry cloth lining of pans can be used but complete removal of collected material is difficult.

Secure an equal number of identical test tubes, rain gauges, or similar clear plastic or glass cylinders. Place these containers side by side, using a holding rack if necessary. The Webster Test Kit marketed by S.L. Webster and Son, Inc., Federalsburg, Maryland (cost, about \$150) contains all the plastic collecting pans, test tubes, and a test tube rack needed for evaluating distribution patterns, if you would prefer to purchase a complete kit.

Arrange the pans at equal intervals in a line as wide as the expected spread pattern, allowing space between pans for spreader wheels. The ground should

be level, having no obstructions higher than the pans. A grassy, gravel, or lightly tilled surface is satisfactory. A hard surface should not be used since materials may bounce into the pans.

Operate the spreader over the pans applying fertilizer or seed using the desired speed and machine setting. The center pan should be straddled by the applicator. Material collected in each pan is poured into a corresponding test tube; pan number one is tube one, pan number two is tube two, etc. If extremely low rates of materials are used, repeat application several times in the same direction until enough material is collected to visually observe the uniformity or differences when poured into the test tubes.

The relative quantities in the test tube indicate what is applied to the ground at the various distances from the swath center. A uniform pattern across the swath will fill the center tubes to about the same height.

A camera with self-developing film is a useful tool for recording test tube results from each test run. If adjustments are made, pictures showing results of each test run can be used to compare and improve distribution patterns.

Adjustments

The Operator's Manuals should be referred to for procedures to correct nonuniform distribution patterns. The ideal spread pattern is symmetrical having an equal or slightly heavier rate of application in the swath center (behind the spreader) with a gradual decreasing rate to the edges of the swath. The "flat top," "pyramid," and "oval" patterns, as shown in the drawings, are all acceptable and will provide uniform application rates across a field when successive passes are properly overlapped.

The "M" pattern, usually associated with a twin-spinner spreader, has too little material in the swath center (directly behind the machine). This distribution pattern is often caused by operators attempting to get the widest possible spread pattern. An earlier release of the material by the spinners can usually correct this problem. This may be done by making one or more of the following adjustments:

- Move the delivery chute forward which will usually shift the point of delivery of the material to the spinners in a direction opposite to the direction of rotation and closer to the periphery of the spinners.
- Retard the spinner blade tips.
- Increase the spinner speed.

The "W" pattern may be caused by conditions similar to those causing the "M" pattern compounded by a leak permitting some material to miss the spinners and fall directly on the ground. Such patterns may also be caused by an improperly adjusted delivery chute and by material sticking to the conveyor belt with a delayed release as the conveyor returns to the front of the bin. Eliminating

leaks and making the same adjustments as suggested for the "M" pattern will usually correct the "W" pattern.

The "lopsided" pattern has an excessive amount of material on one side of the swath center line. With a twin-spinner spreader, this is usually caused by the lack of, or an improperly adjusted flow divider which, when operating on slopes, should deliver equal amounts of material to the two spinners. Without a flow divider, a greater amount of material will go to the lower side than to the upper side.

The single-spinner spreaders will produce "lopsided" patterns when the delivery chute is improperly adjusted. If the right half of the pattern from a clockwise-rotating spinner (viewing the spinner from the top) is heavier than the left half, adjustments that will delay release of the material from the spinner are needed. Three common adjustments to delay release of materials are:

- Moving the chute to shift the point of delivery in a clockwise direction.
- Moving point of delivery closer to the center of the spinner.
- Decreasing the spinner speed.

If the rate left of the swath center is heaviest, make adjustments opposite to those indicated.

Effective swath width

There is often a misunderstanding among operators as to procedures for determining the effective swath width. An approximation of the effective swath width of a "flat top," "pyramid," or "oval" spread pattern can be found by locating the point on the right and left side of the swath where the application rate is one-half the rate through the center section of the swath. This distance between these points is the effective swath width and should be used as the swath spacing.

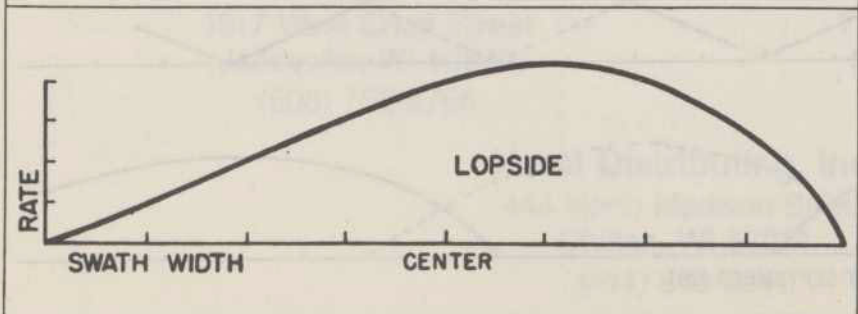
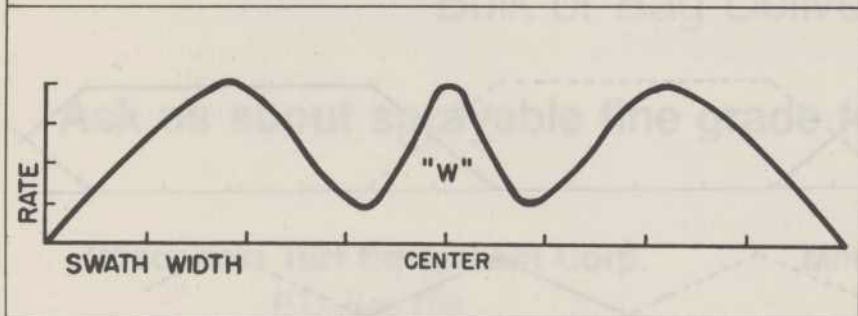
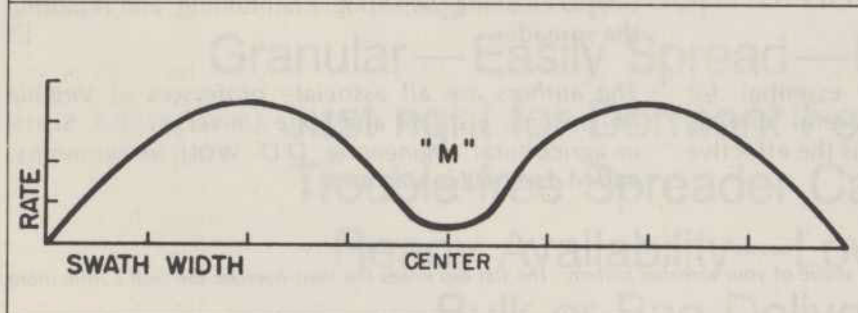
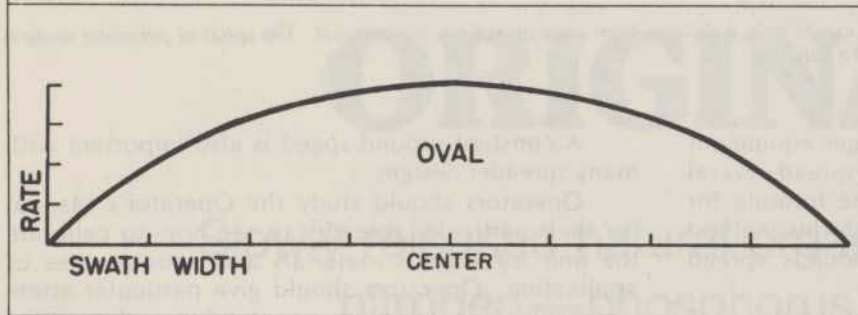
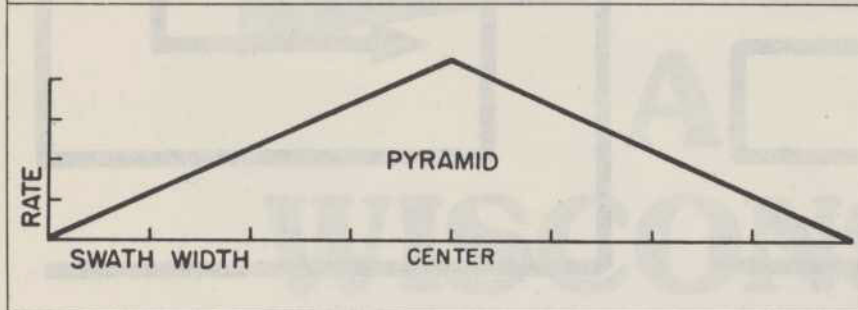
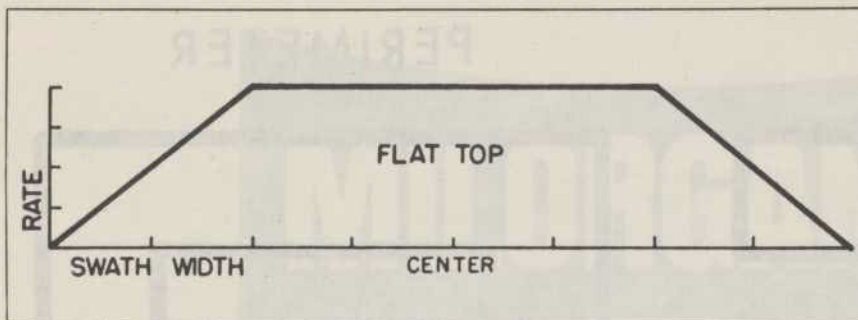
When practical, spreaders should be driven around fields in a perimeter pattern to minimize the effect of variations that might exist in nonsymmetrical spread patterns. The "back and forth" travel pattern should be used only if the distribution to each side is symmetrical and uniform.

Calibration

Once the effective swath width has been determined, the spreader can be calibrated for the proper rate of delivery. One method is to fill the hopper to a given level and travel a distance equal to one acre, under field operating conditions. Then determine the amount of material needed to refill the hopper to the same level.

Travel distance (feet) per acre equals 43,560 square feet per acre, divided by effective swath width in feet.

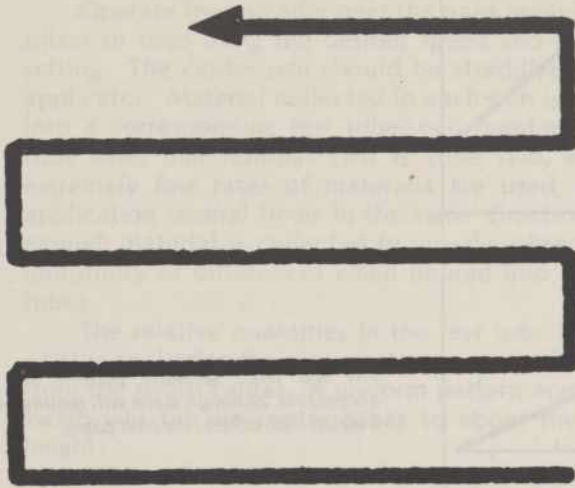
While this method is practical for use with small equipment and small loads, it is difficult to determine the exact amount of material used from, say a 30,000-



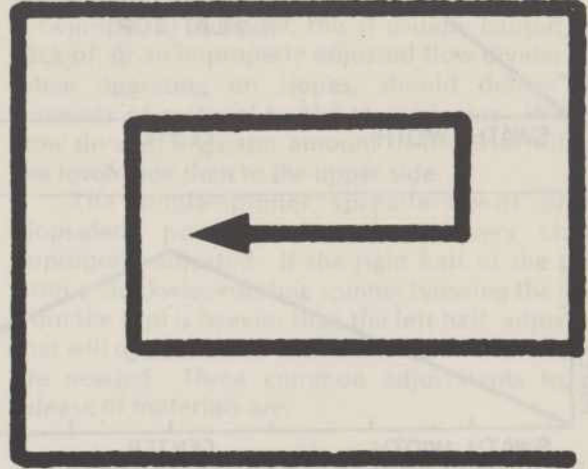
The top three spreader patterns are all acceptable, although some will require more overlap than others (see next page).

The bottom three spreader patterns can be corrected by following the directions listed in this article.

BACK AND FORTH



SPIRAL OR PERIMETER



The back-and-forth route across a field, left, is accurate only if delivery from your spreader is symmetrical. The spiral or perimeter route is generally considered the best route to take through a field.

pound-capacity truck. When using larger equipment it is more accurate to weigh the truck, spread several acres, then weigh the truck again. The formula for measuring your rate of application with this method would equal the total number of pounds spread divided by the number of acres spread.

Skilled operators

Accurate spacing of swaths is essential for uniform application; this requires careful driving. The swath spacing should be the same as the effective swath width.

A constant ground speed is also important with many spreader designs.

Operators should study the Operator's Manual for their particular spreader to see how to calibrate the unit for various materials and various rates of application. Operators should give particular attention to cleaning, adjusting, maintaining, and repairing the spreader. □

The authors are all associate professors at Virginia Polytechnic Institute and State University; E.S. SMITH in agricultural engineering, D.D. WOLF in agronomy, and M. LENTNER in statistics.

The amount of overlap you need depends on the shape of your spreader pattern. The flat top needs the least overlap; the oval a little more, and the pyramid the greatest.

