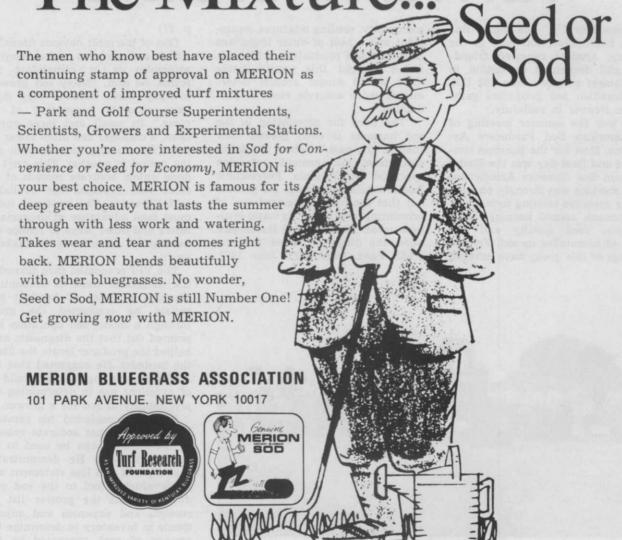
The More The Merion... The Merion... The Better

The Mixture.





Delegates gathered at the Scien-Turf-ic Sod Farms, Inc. to see a pivot irrigation system in action. The unit moves 10 feet per minute. This system covered a 35 acre sod field.



Robert K. Reynolds discusses the need to keep accurate accounting records in the sod business.

SOD INDUSTRY SECTION

ASPA Show Of Shows

"Green Side Up," the punch line to the best-known sod joke in the industry, kindled renewed friendships and deepening dedication to the business as more than 200 U.S. and Canadian sod producers gathered in Denver in mid-July.

It was the summer meeting of the American Sod Producers Association. Host for the business conference and field day was the Rocky Mountain Sod Growers Association.

The meeting was strongly punctuated by speeches relating to business management, record keeping, labor problems, seed quality and the threat of nematodes in sod. Former meetings of this group have covered

sod quality, seeding mixtures, equipment and a host of other important factors in sod production, ASPA officials figured this year's theme topic would center around determining more accurate costs of production.

"The need for accounting in the sod business is even greater now than in the past," Robert K. Reynolds, farm management extension specialist at Virginia Polytechnic Institute told the group. He pointed out that the most important use of accounting was to satisfy basic business needs. These include the service need, the diagnostic need and the credit need. (See WTT June 1973,

p. 27)

One of the most obvious needs for which sod growers use accounting principles is in completing tax forms, he said. "Many sod growers overpay taxes because they don't keep accurate accounting of income." In small and large operations, a manager can often lower his taxes by shifting income from one tax period to another. This can't be done unless accurate records of income and expenses are available, said Reynolds. The producer today must take advantage of depreciable assets and other ways to reduce tax liability if he intends to make a profit.

The VPI economist then turned to the diagnostic need of accounting. Through a series of handout materials, he conducted the group through a model sod operation and pointed out that the diagnostic need helped the producer locate the ills of the business. He suggested that the ASPA Accounting Manual could be of excellent use in determining the profitability of sod for a grower.

Reynolds concluded his remarks by indicating that accurate records of the business can be used to fill the credit need. He demonstrated that a profit and loss statement was an invaluable tool to the sod producer. It lets the grower list all receipts and expenses and adjustments in inventory to determine the amount of cash generated by the business, he said.

Raymond J. Folkman, Reynolds



There was much interest shown in "Big Blue," the sod harvester designed from the ground up by Wiley Minor, Princeton Turf Farms. Here, it cuts a load of sod in record time.



Nunes Sod Harvester was again demonstrated at this year's show. Built by John Nunes, Patterson, Calif., the unit was driven by son Greg.

and Reynolds Co., Denver, then reviewed the availability of forms for the ASPA Accounting Manual. He also explained some short cuts in accounting procedures as outlined in the manual.

One of the fastest moving, eyeblurring and hard hitting presentations of the day was given by William A. Harding, attorney labor law section, Nelson, Harding, Marchetti, Leonard and Tate, Lincoln, Nebraska. Topic was "Labor Relations Problems Confronting The Sod Industry" and many a sod producer was amazed by the fountain in information which flowed forth.

No company should have to have a union, Harding said. "When you give up, when you don't manage your firm, then you are going to have trouble."

The attorney, who is on a retainer with ASPA, succinctly presented facts about labor unions. "Labor unions in the public's opinion have dropped," he said. "Sixty percent of the people in the country don't like labor unions." Only about 20 percent of the working force are members. This 20 percent has remained stagnant for the past 20 years while the total labor force has grown.

Harding then reported on the various government bodies under which labor unions operate. He said that the jurisdiction of the National Labor Relations Board has been expanded in recent years. Institutions in the past which have not been covered by NLRB can expect to be covered in the future. He pointed out that sod producers may be subjected to pre-hire agreements when installing sod on construction sites controlled by unions.

"Before you sign a pre-hire agreement remember that unions can't do a whole lot for you, but they can do



This Toro Groundsmaster 72 mows a swath 72 inches wide. Mower height is adjustable front and rear from ½-inch to 6 inches. It was one of several mowers demonstrated by the company during the field day.

a lot against you," he said.

He then moved to a discussion of Commission (EEOC). "Anybody

with 15 or more employees is covered," he said. "The Federal act states that costs in an action are



Dr. Henry W. Indyk (I) receives a commemorative plaque and honorary membership to ASPA from Jack Kidwell, ASPA president.

Honorary ASPA Member

Dr. Henry W. Indyk has served as executive secretary of the American Sod Producers Association for 5 years. Through his wisdom and leadership, the organization has grown from a few members struggling for recognition to a strong and vibrant national group. Indeed, it is international with eight members representing Canada and representation in three other countries.

His faithful devotion to the goals and ideals of this group have won him the highest praise among the organization's members. Because of pressing commitments, he is stepping down as executive secretary of ASPA. During the recent meeting of the membership, he was presented a plaque and made the first honorary member of this organization.

WEEDS TREES AND TURF has enjoyed many beneficial relationships with Dr. Indyk. We wish him all the success in the future and our sincere appreciation for the excellent help he has rendered to the readers of this magazine.

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Model F20 of the Jacobsen turf tractor quickly mowed the demonstration area with ease.

assessed against you if you lose. You can also be charged with atthe Equal Employment Opportunity torney fees."

Harding's advice to sod producers was to set up an affirmative program and don't discriminate on hiring practices. "If you promote people based on subjective criteria, you're subject to action by minority employees," he said. "You need objective criteria." He recommended strongly that all delegates obtain a copy of the EEOC guide and record requirements.

His discussion then turned to the Occupational Safety and Health Act (OSHA). Any employer who has an employee and is engaged in interstate commerce is subject to OSHA, he said. Initially OSHA was given three years to obtain standards for industry. Currently there are spe-



This Parkmaster has nine gangs. All are hydraulically operated by controls easily accessible to the driver.

cific standards on the construction and maritime industries.

For those in agriculture, there is a special deal, he said. "We haven't seen anything yet." Although the regulations haven't been released for suppliers, Harding cautioned growers that "if anything is unsafe then you are in violation of the act.

"The innocent until proven guilty theory doesn't work with OSHA," he said. "If you are inspected and you receive a report on what you owe, you have 15 days to make an appeal." He cited some of the violations and the fines for the group.

Harding's last topic was the Wage and Hour Law. Basically sod producers who are classified as agriculture enjoy an exemption, he said. But if you have employees who cut (continued on page 48)



Dr. Jack Butler, extension associate professor-turf, Colorado State University, discusses the results of sod and turf trials at the campus. There was much interest in the new growth inhibitors currently under test.



MAGNETIC CHARTBOARDS: Spectrum Medical Industries, Inc., Los Angeles, Calif.

Put your company on the board with this easy to use, highly visible magnetic chartboard. It's available in five convenient sizes. Permanently printed grids are covered with a tough Mylar overlay. Grids per chartboard vary from 50 to 450. The Mylar coating accepts writing from crayons, wax pencils, fiber pens with non-permanent ink or even transfer lettering. The steel backing accepts all types of magnets. A long line of accessories makes these boards a versatile item. Ideal for plotting sales growth, budgets, forecasts, maintenance meetings, and many other important items. For more details, circle (701) on the reply card.



TRASH CONTAINER: Peerless Portable Metal Buildings, Inc., Santa Cruz, Calif.

This trash container was designed to keep out the midnight raids of wildlife. Its large, roomy design makes it ideal for use in commercial turfgrass areas as a refuse bin. Each compartment holds the equivalent of a 55 gallon drum. Overall length is 7 feet 8 inches, width is 2 feet, height is 30 inches. Weight is 380 pounds, empty. Construction is 14, 16 and 18 gauge galvanized steel and stainless steel piano hinges. Unit is equipped with skids on the bottom for easy movement from one area to another. Color is Forest Green. For more details, circle (703) on the reply card.



SPREADING SCRAPER: Eversman Mfg. Co., Denver, Colo.

Here's a precision spreading scraper that can load and spread six yards of dirt fast. It's operated with regular farm tractors equipped with two control valves. The cutting blade is held at a constant level while the bucket is being rotated to the full dump position. The gate is controlled with a pair of eight inch stroke cylinders. This feature permits the operator to feather out the load to the desired depth through the length of the dump area. Spread cylinders and extend bucket cylinders can be raised or lowered at the touch of a control. For more details, circle (702) on the reply card.



BRUSH CHIPPER: Municipal & Industrial Service Equipment Div., FMC Corporation, Pomona, Calif.

Need a quick way of disposing of trees and limbs. Try this brush chipper which boasts a 318 cu. in. V-8 engine. Rugged, safe feed table completely encloses rotor blade opening when unit is closed and locked. Rear located controls provide operator safety and convenience. A special feature is the exclusive, 6-sided disposable bed knife. Unit is available in standard and off-the-road models, in either 12 inch or 16 inch rotor blades. For more details, circle (704) on the reply card.



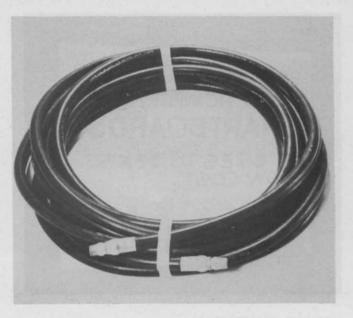
PLASTIC FLOW CONTROL VALVE: Griswold Controls, Santa Ana, Calif.

This automatic flow control valve is based on a unique, patented principal in which a perforated cup moves in response to line pressures. Constant flow is easily maintained. The flow rate is set at the factory by the size of the perforations in the cup, and the strength of the spring that controls the position of the cup. Body of the unit is lightweight corrosion-resistant plastic molded from polyvinyl chloride (PVC) resin. Valve is available with either threaded or solvent-weld end fittings. Factory-set flow rates range from a half gallon per minute up to 150 gallons per minute. Unit is available in six pipe sizes, from ½ inch up to 2 inches. For more details, circle (705) on the reply card.



HYDRAULIC POWER WRENCH: Limb-Lopper Co., Inc., Santa Fe Springs, Calif.

Features of this new lightweight impact wrench include a uniquely located reversing valve that is easily operated by a flick of the thumb. The design of the valve reduces clogging and oil leakage. Called Powerench, the unit needs no new power source; it is designed to operate on the hydraulic system of aerial lift, digger and derrick trucks. Models are available for either open or closed systems. Motor generates 10,000 rps and takes four to six gpm at 2500 to 200 PSI. Socket speed is 1100 rpms. Wrench converts easily to a drill by just snapping in the chuck. For more details, circle (707) on the reply card.



HEAVY DUTY SPRAY HOSE: American Hose & Reel Co., Marland, Okla.

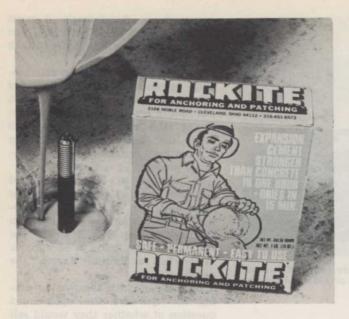
A wide variety of spraying applications can be done with this type of thermoplastic spray hose. It is light in weight, remains flexible — even in conditions of extreme cold — and its cover won't mark sidewalks or buildings. The core tube and cover are polyvinyl chloride (PVC). It is reinforced with heavy-duty dacron and a thermoplastic cover is resistant to sunlight and weather. Working pressures are from 250 to 1,000 PSI in ID sizes from ¼ to ¾ of an inch. The company also makes hose for liquid fertilizer applications. It is a clear plastic tubing that is easy to check for even application. Working pressure is 75 PSI; average burst pressure is 300 PSI. For more details, circle (706) on the reply card.



SAND AND GRIT SEPARATOR: Laval Separator Corp., Fresno, Calif.

Remove as much as 95 percent of all sand and grit with this submersible separator. It's installed on the suction side of the pump. Unit has no moving parts or screens and requires no maintenance or back flushing. There is no significant reduction of flow with the separator. Pressure drop is less than 10 PSI. Unit can handle flow rates from 5 to 4,100 gallons per minute. For more details, circle (708) on the reply card.





FAST-SETTING EXPANSION CEMENT: Hartline Products Co., Cleveland, Ohio

Called Rockite, this product has double the holding power of fully-cured concrete. It hardens rapidly enough to permit anchoring of studs to heavy machinery in a few hours. Product is mixed with water and poured into place in a semifluid state. Its hydraulic-type action causes it to expand slightly as it hardens, locking itself into place. It reaches an initial set in 15 minutes and develops a compression strength of 4,500 psi within one hour. Rockite is packaged in five sizes from one pound to 125 pounds. It may be used inside or out on both vertical and horizontal surfaces. For more details, circle (709) on the reply card.



SELF-DUMPING GRASS CATCHER: Goodall Division, Louisville, Ky.

Now you can dump clippings while on the go. This self-propelled mower is equipped with a new grass catcher which can be dumped by operating a control on the handlebar. Operator can dump clippings into windrows for easy removal, or can stop the mower to empty the hopper directly into containers. It is easily installed on the mower without the use of tools. For more details, circle (711) on the reply card



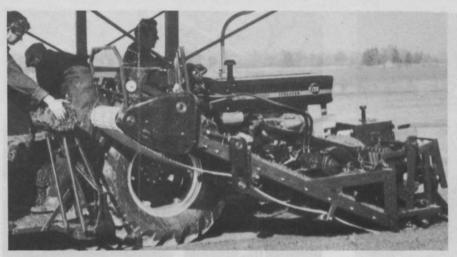
OVERHEAD RACKS: Knaack Manufacturing Co., Crystal Lake, III.

If you have extra-long ladders or material to haul by pickup truck consider this new overhead rack. It has two side rails, three crossbars and four legs, all pre-drilled for easy assembly, with bolts furnished. Legs are bolted to the truck bed for maximum stability. In addition, the front crossbar of the overhead rack protects cab roof against damage. Racks are designed for pickup trucks with 8 feet or longer bodies. For more details, circle (710) on the reply card.



ELECTRIC TRACTOR: Avco New Idea, Coldwater, Ohio

An electric tractor has the potential for many uses with a commercial turfgrass operation. It can nicely complement the maintenance schedule for electric golf carts and virtually use the same recharging system. This tractor is a 14 horsepower unit that has a variety of attachments as optional features. Standard features include automotivetype disc brakes, a dashboard switch that stops the mower blades in three seconds or less, a seat switch that cuts off tractor and attachment power the moment the operator leaves the seat, and a special return to neutral feature that prevents accidental restarting of tractor until key controls are in neutral position. For more details, circle (712) on the



Jerry Brouwer, Brouwer Sod Farms, Keswick, Ontario, Canada, entered his sod harvester in the field day competition. Unit mounts on a Ford or Massey-Ferguson tractor.

ASPA SOD SHOW

(from page 44)

sod on Monday and Tuesday and lay sod on a construction site on Wednesday and Thursday, then the wage and hour exemption is ruled out. You must pay the minimum wage across the board, he said.

Delegates were then presented a review of seed quality by Paul Florence of Marysville, Ohio. He said that according to the Federal Seed Act only a one gram sample is used to make the standard report. He recommended a much larger sample be used and showed the group two ways to obtain a more uniform sample of a lot of seed.

Florence showed slides of seed size and said that growers could expect a greater savings in seed investment when seed was more uniform in size. He also discussed post harvest dormancy as a factor in establishing a stand of sod.

At the end of his presentation Florence said that seed would be in short supply this year. Seed producers attending the meeting reported yields off 10 to 12 percent in the Willamette Valley, with irrigated seed fields harvesting about normal yields. In the Spokane Valley yields in both irrigated and dryland crops are down 20 to 25 percent.

Last speaker in the conference session was Dr. C. F. Hodges of Iowa State University who discussed nematodes as a threat to sod production. There are a large number of nematodes in the soil which can't attack roots, he said. "In order for a nematode to do damage, it must have a stylet," he pointed out, "but not all nematodes with stylets attack roots."

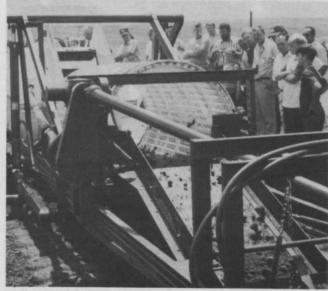
Dr. Hodges reviewed the relationship between plant parasites and other nematodes. He also pointed out that in certain cases of Fusarium blight, the nematode appears to make the disease worse. But the disease may appear without nematodes present, he cautioned.

In answer to the question of whether nematodes are a threat, he said that the probability of economic loss during sod production in the south is greater than in the north. "It is not going to be a major factor but a limiting factor," he said.

He concluded his remarks by asking sod growers the open-ended question of whether they would sell sod that has a known nematode problem.

The second part of the conference consisted of a tour of the turfgrass and sod plots at Colorado State University, Ft. Collins. Delegates enjoyed an interim stop along the route from Denver to Ft. Collins to witness various water resource developments in Larimer county. Considered part of the Big Thompson Project, a Bureau of Reclamation venture, water is collected on the western side of the Rocky Mountains and diverted via a tunnel to the agricultural and grazing lands on the eastern slope.

At Colorado State University, conferees toured sod plots where tests were in progress. One of the most interesting was the test involving turf inhibitors. Dr. Jess Fults, plant



This rock picker demonstrated by Glen Seibold of Cleveland, North Dakota caught the eye of everyone. The drum in the picture rotates to expel dirt from rocks. Rocks are carried to a bin in the rear where they are held until dumped.



Roterra, a power-driven rotary harrow, pulverized dirt into a smooth seedbed. It's made by Lely. Vertical tines in the front of the unit whirl through the soil with an "eggbeater" action. It's mounted on a 3-point system and PTO driven.

physiologist said that Sustar (3M Company) looked particularly promising in inhibiting growth.

The annual business meeting and election of trustees was held at a luncheon at the university student center. Those elected were Paul Florence and Parker Shirling. Jack Kidwell, ASPA president presided at the business session. "This is a dynamic industry and we've got a long way to go," he said. "It takes motivation, education, and many other important factors.

Kidwell challenged those in the meeting to work together to solve the sod industry's problems. "Are you really interested?" he said, "Are you willing to get involved in committee activities, legislative matters and other matters that need to be accomplished."

President Kidwell told the group that because Dr. Henry W. Indyk, was stepping down as executive secretary, ASPA had engaged the services of Robert Geary, Garmo, Inc. "We're hiring a professional management firm," he said. "This will allow us to receive more for our dues dollar and the firm will act as a clearing house for all sorts of things."



New officers of ASPA for the coming year are: (1-r) John Nunes, Nunes Turfgrass Nurseries, Inc., Patterson, Calif., treasurer; Jack L. Kidwell, J.L. Kidwell Landscape Corp., Culpeper, Va., president; Charles Davis, Wharton Turf, Wharton, Tex., vice-president; and Jerry Brouwer, Brouwer Sod Farms, Ltd., Keswick, Ontario, secretary.

Membership chairman Jerry Brouwer, Brouwer Sod Farms, Ltd., Keswick, Ontario informed the delegate body that there was an effort to increase membership. "A person who brings in the most paid members (no less than three members) will receive a one year free membership as an incentive," he said.

Irrigated sod was of interest to many sod producers attending this year's meeting. On the return to Denver, members stopped at the Scien-Turf-ic Sod Farms, Inc. where Don D. Schlup discussed his pivot irrigation system. This was but one of several types used by this producer, but it commanded much

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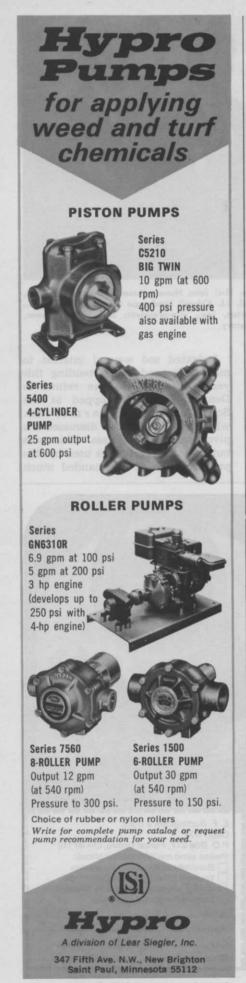
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interest by those in attendance.

The ASPA field day this year was held at Richlawn Turf Farms, a sprawling complex of enterprises owned by Mel Rich that has grown in the past 10 years from 18 acres of sod to 1800 acres. Early in the day sod growers witnessed Richlawn turf installers lay sod in a new housing complex. Then everyone went to the sod field to view the equipment demonstrations.

Glen Seibold of Cleveland, North Dakota showed the group how the Harley landscape power rake and rock picker could improve their production of "rock-free" sod on well-tilled ground.

Three sod harvesters were demonstrated this year. They were the Princeton 4020, a totally new concept in harvesting design, built by Wiley Miner Princeton Manufacturing Co., Heightstown, N. J.; the Brouwer sod harvester, Brouwer Turf Equipment, Keswick, Ontario; and the Nunes sod harvester, built by John Nunes, Patterson, Calif.

Mowing equipment shown at the field day included units manufactured by Toro, Jacobsen and Ransomes.

New officers for the coming year are: Jack L. Kidwell, J. L. Kidwell Landscape Corp., Culpeper, Va., president; Charles Davis, Wharton Turf, Wharton, Tex., vice-president; Jerry Brouwer, Brouwer Sod Farms, Ltd., Keswick, Ontario, Canada, secretary; and John Nunes, Nunes Turfgrass Nurseries, Inc., Patterson, Calif., treasurer. The board of directors includes: Dale Habenicht, H & E Sod Nursery, Inc., Tinley Park, Ill.; George Stewart, Karandrew Turf Farms, Inc., Suffield, Conn.; Tobias Grether, Cal-Turf, Inc., Camarillo, Calif.; William Latta, Princeton Turf of Kansas City, Kansas City, Mo.; John Nunes, Jr., Nunes Turfgrass Nurseries; Wallace Huggett; Gerry Brouwer, Brower Sod Farms, Ltd.; Charles Davis, Wharton Turf; Parker Shirling, Princeton Turf Farms, Centreville, Maryland;; and Paul Florence.

Tank Mixed Compounds Okayed Says EPA

Can two chemicals each bearing an EPA approved label be tank mixed? Can you apply one compound immediately after the application of another compound?

These and other questions have haunted applicators across the country for many years. Now the Environmental Protection Agency has published guidelines. According to EPA, tank mixes and serial applications fall into one of several categories:

Category 1. Instructions provided for such use on one or more labels of EPA registered products:

Category 2. Such use may be covered by an intra-state registration;

Category 3. Various tank mixes and serial applications have been tested and recommended by agricultural experiment stations, state departments of agriculture or are common agricultural practices.

EPA says that tank mixes or serial applications which are consistent with the label constitute an acceptable use.

Intra-state registrations remain valid until replaced by EPA registrations under Section 3 of the amended FIFRA. This will occur generally after October 21, 1974, and be completed by October 1976, according to the timetable set for the Federal Environmental Pesticide Control Act (FEPCA). Special actions taken by the EPA administrator in the form of orders could reduce this time schedule. For the time being, tank mixes and serial applications registered by a state will not be deemed uses inconsistent with the label.

EPA has said that in passing FEPCA, Congress intended for the Agency to apply the test of reasonability in enforcing misuse provisions. Thus, until FEPCA is fully implemented, tank mixes and serial applications in Category 3 will not be considered inconsistent with the label if:

1. The products in the mix are applied at a dosage rate not to exceed the label instructions for use of any product in the mix used single for the same set of insects on the same crop; and

2. the label on one or more of the products does not explicitly instruct against such mixture.

There's a lot of "iffy" and not assumed risk which EPA cautions applicators to take into account before mixing, however. For instance, EPA says it is okay to mix the compounds, providing efficacy or human and environmental safety data warrants the use. The applicator must also be willing to accept the risk with respect to effects on crops, equipment, applicator safety, environmental effect and tolerance pre-harvest intervals.

In other words, EPA has given permission but not granted approval. It still reserve the right to prohibit the action on a case-bycase basis.