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Methyl Bromide Critical Use Exemption Update

Partial Approval Granted for Florida's Needs

It took years, mountains of paperwork and meetings all over the globe, but finally, the U.S. and ten other developed countries won a partial one-year reprieve from the Jan. 1, 2005 deadline to phase out methyl bromide. At its March 24-26 extraordinary meeting, the parties to the Montreal Protocol approved critical-use exemptions (CUEs) for 2005 at 35 percent of 1991 levels — sort of. Any increase above 30 percent can only come from those countries' existing stocks of materials.

Florida Fruit and Vegetable Association, in cooperation with individual commodity groups, prepares and submits the CUEs for Florida crops.

Changing the Rules

The 11 countries granted CUEs are Australia (145 metric tons), Belgium (47), Canada (55), France (407), Greece (186), Italy (2,133), Japan (284), Portugal (50), Spain (1,059), the UK (128) and the U.S. (7,659). The United States requested a multi-year CUE, but faced strong opposition from the European Union and developing countries. Those considered to be developing countries have until 2015 to phase out methyl bromide.

The Crop Protection Coalition (CPC), a group of more than 40 agricultural associations including FFVA, praised the U.S. delegation's efforts. CPC Chairman Reggie Brown said, "There's no doubt that they tried to advance the interests of the U.S. food and agricultural industries in a reasonable and responsible way consistent with treaty provisions."

At the same time, however, Brown said the CPC was outraged that other parties to the treaty, particularly the European Union, were unwilling to even consider the request of the U.S. "Rather, the EU focused on attempting to rewrite the rules in the middle of the game. Those parties are pushing to ban methyl bromide even where a lack of technically and economically viable alternatives has been established," he said.

FFVA Assistant Director,

Environmental & Pest Management Division, Mike Aerts agrees, and says that the Montreal Protocol had been concerned all along with production amounts, not existing supplies plus what was produced. "The Montreal Protocol was supposed to apply to amounts of material produced," he said. "Our thinking is that because an amount was produced in 2004, it shouldn't even be on the negotiating table for 2005," he said. "Now that the existing stocks have found their way into the equation, they'll be there from now on, even though the Montreal Protocol only addresses production."

Another issue is the one-year versus multi-year exemption concept. Aerts says that the U.S. had solid reasons for requesting multi-year exemptions. "It would decrease government investment, for one thing," he said. "From petition generation to review, throughout the whole nomination process, it's expensive. EPA has a whole division that has done nothing but work on CUE nominations for the past two years."

Aerts also makes the point that annual petitions put the grower at a disadvantage. "How can you plan your production schedule without knowing if you'll have access to something like methyl bromide, and in what quantities?" he said. "And before banks lend you money, they want to know those details."

A Little Background Information

The full name of the meeting was the "Extraordinary Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer," or ExMOP for short. The more than 350 participants represented 114 governments, UN agencies, non-governmental organizations, inter-governmental organizations, industries and academia.

The parties discussed issues left over from the Fifteenth Meeting of the Parties last November in Nairobi. They reached a "compromise" by differentiating between usage and production for CUEs, they reviewed the work of the Methyl Bromide Technical Options Committee (MBTOC), concluded that there was room for improvement in the nomination process, and estab-

lished several contact groups to work on improving the CUE nomination process. They also initiated discussions regarding further specific interim reductions of methyl bromide for the period beyond 2005 for developing nations.

The Montreal Protocol is administered through the United Nations Environment Programme (UNEP), which was created back in May 1981. It addressed scientific evidence originally produced in the 1970s, which alleged that various substances were damaging the earth's ozone layer. At that time, UNEP began negotiations on an international agreement designed to protect the ozone layer. The resulting Vienna Convention for the Protection of the Ozone Layer was adopted. It called for cooperation, but did not force parties to reduce the levels of ozone-depleting substances.

The Montreal Protocol, developed in September 1987, defined obligations to reduce levels of ozone-depleting substances and established a timetable. A number of discussions, refinements and adjustment followed, all leading up to the March extraordinary meeting. (The term "extraordinary meeting" refers to a meeting that was organized to take care of business unresolved at a previous, regularly scheduled meeting.)

Misperceptions Rampant

The decision to grant the one-year 30 percent CUEs did not go unnoticed in the media. The Inter Press Service News Agency quoted Monica Moore, co-founder of Pesticide Action Network North America, as saying, "It is a cheap reward for those farmers and agribusinesses that have refused to use alternatives to this dangerous and unsustainable substance

Dr. Jamie Liebman, staff scientist with the group, told the Financial Times of London that "for all of the major uses of this pesticide as a soil fumigant, there are examples of the same crops currently grown profitably, in the U.S. and other countries, without methyl bromide."

And Fox News reported that "over the last three years, the Bush administration has repeatedly opposed or sought to weaken and delay multinational action to reduce dangerous chemicals." This is from a network considered to be fairly friendly to the current administration

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centrated long-term program of research into methyl bromide alternatives was taking place, they'd be a little more open-minded. Aerts, who helped prepare the Florida CUEs and attended the extraordinary meeting, said, "It would help our effort if we were able to get all the information from everyone who has been exploring alternatives," he said. "We have the information from university and USDA research, but we need to hear from other grower-type people who have done their own experimentation with alternatives. We know people are doing the experimentation, but we don't get the feedback."

In fact, the FFVA Foundation, which funds research and education that benefits Florida fruit and vegetable growers, supported a stack of research projects into alternatives last year. Research hasn't stopped. Experimentation continues.

"It has to be a systems approach," said Aerts. "And much needs to be understood about that type of systems approach," he said.

Friday Surprise

"What the U.S. government proposed that Wednesday morning of the extraordinary

meeting was a multi-year, 30 percent level in 2005, 30 percent in 2006 and 28 percent in 2007," said Aerts. "And by that Friday night, when we walked away from the meeting, we were getting 30 percent for one year plus existing stocks,".

He says the parties were under the impression that countries could not go above 30 percent according to the Protocol. "All the State Department lawyers and others in this country say is no, that's not a statutory requirement in the Protocol, that's just their understanding of it," he said. "The U.S. government said we needed 38.2 percent of the baseline amount, and the whole point of the Protocol is that it's based on demonstrated need. That's our demonstrated need, 38.2 percent," he said. "Friday's decisions came as a surprise to many people," said Dan Botts, FFVA's Director, Environmental & Pest Management Division.

"The primary reason the European Union and others were so intransigent is pure politics. At the urging of the U.S. non-governmental organization activists, they assured a delay would result in different outcomes in the next round.

"It's an election year in the U.S.," said Aerts. "They have certain feelings about dealing

with the Bush administration, so they roll the dice in case a new administration might be elected. They have nothing to lose."

*Credit: FFVA news release at www.ffva.org
Editor's Note: We work with the FFVA on the Spring Regulator Tour, in which we host a golf course tour at The Old Colliers Club in Naples each spring. It is never too late to keep writing your senators and congressmen to intercede on this issue.*

The GCSAA, working with methyl bromide manufacturers, submitted the critical-use exemption paperwork on behalf of all golf course turfgrass managers. However this report by our friends at FFVA, who did the same for Florida agriculture, is a prime example of the difficulties encountered in trying to work out a fair and just allocation and use of this product.

As recently as October, Hendrix & Dail was asking us to send letters and emails to our legislators to impress upon EPA the need for a economical and practical allocation system so that the turfgrass industry can use the best and most environmentally sound soil fumigant since no comparable alternative has been produced.

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The key to attracting purple martins to golf courses is location, location, location of the nesting apartment houses. The perfect site would be on the shore of a pond, lake, stream, river or bay with no tall trees within 40 feet and a home or building within 40-50 yards.

Being next to water guarantees the purple martins open spaces for soaring and hunting, availability of water for drinking and cooling eggs or chicks in very hot weather. Young purple martins defecate in membrane-lined fecal sac which the adults carry away from the nest and drop in the water, as opposed to land, so that predators cannot follow a trail back to the nest.

Before eastern Native Americans started hanging hollow gourds for purple martins to nest in, martins nested in abandoned woodpecker cavities. For the last 1,000 years or so, first native Americans,

then colonists and then subsequent generations of Americans to the present have put up homes for purple martins.

East of Arizona and New Mexico's suaro cactus deserts, purple martins have completely abandoned tree cavities as nest sites and now nest exclusively in human-supplied housing. Martins have learned that by living close to humans, should there be a predator attack (raccoon, snake, hawk or owl) frantic purple martin activity often brings human assistance to drive the predator away. Knowing this, purple martins are more likely to colonize an apartment close to human dwellings rather than one farther away.

Purple martins are preyed upon by coopers' and sharp-shinned hawks. If the martins see a hawk coming and can get into the air, their terrific flying skills prevent them from being caught.

However, if nearby trees obscure martin vision of an approaching hawk, they can be caught sitting on their apartments before getting airborne. Thus, instinctively, martins usually choose apartment sites 40 feet or more away from tall trees.

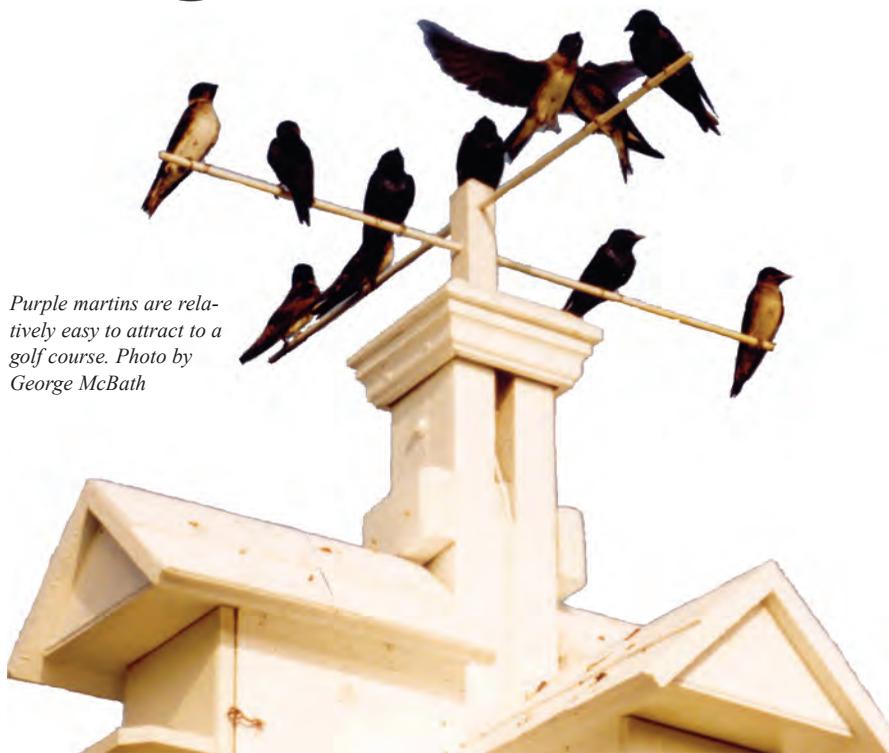
Please note however that it is not necessary to choose the absolutely perfect location for an apartment house (near water, away from trees, close to a dwelling) to attract purple martins in Florida. There are so many purple martins seeking nesting opportunities in Florida, they will frequently choose less than ideal sites. They will nest away from water if there is a dwelling and no tall trees close by. Occasionally they will nest closer than 40 feet to tall trees. The closer to the ideal site, the greater will be the probability of attracting martins.

In south Florida, a purple martin apartment in an ideal location has at least a 90 percent

Purple Martins and Golf Courses Go Together

By George McBath

Purple martins are relatively easy to attract to a golf course. Photo by George McBath



probability of attracting them in the first year. Of the 50 or so apartments I have erected in the last eight years, almost all had nesting birds the first year. How fast can it happen? Once at a Corkscrew Swamp Sanctuary festival, I set up an apartment as a demonstration at my display booth in the parking lot at 8 a.m. By 11 a.m. there were four purple martins inspecting the housing, even with cars and people milling about close by. On another occasion I put up a martin apartment for a friend at Windstar Country Club. When I finished, we retired to his lanai to celebrate with some wine. After half an hour I heard purple martins vocalizing in the distance. In the next 30 minutes we had 10 martins going in and out of the gourds. Boy, we really celebrated then.

Some purple martin enthusiasts use a trick or two to increase the probability of success. I have not found them necessary, but I offer them if you are so inclined:

1. At dawn near the apartment, play a tape recording of the purple martin dawn song.
2. Martins instinctively know that

Ospreys on the Golf Course

Editors Note: We start our second year of running the "Wildside" feature by Craig Weyandt, which serves as part of his environmental education and outreach to his club members by writing monthly articles for his club's newsletter. He gets lots of positive feedback and interest from his members. We encourage you to share these stories and your own observations and photos with your club members as a means of educating the golfers and public about the environmental benefits of golf courses.

By Craig Weyandt

Returning to work after the hurricanes in September 2004 we found the golf course a mess. Trees were down, debris everywhere, the bunker sand was gone and water damage was visible throughout the course. While the staff and I were busy doing the clean up I would stop every so often to check around for wildlife. At first there was not much to see. I think the smaller the animal was, the faster the return. I don't know if that was true; it was just my observation.

One bird that we did notice in its return was the osprey; not only because of its size but there were many more ospreys after the storm then before the storm. Sometimes I could count as many as 20 at one time from the No. 6 tee.

I believe that there were more ospreys after the storm because their nests were blown down and they were looking for new nesting sites or because there just happened to be an abundant amount of food in the area. Either way, it was nice to see so many around the golf course. I hope the following information helps you enjoy this bird as much as I do.

Flight and Hunting

Ospreys are fish hawks that have brown and white markings on their bellies. They can soar on wind currents, but most of their flight is with wings flapping actively. Ospreys hunt by flying over the water looking for fish. They hover before diving



An Osprey perches on a hurricane battered mangrove near the 6th tee at The Moorings Club. Photo by Craig Weyandt.

towards the water, then plunge in feet-first. Mullet are a good prey fish in Florida because they school, swim in shallow water, and are rich in fat.

Ospreys usually hunt alone during early morning and late afternoon. Ospreys that are not parents need to catch one to three fish a day. A breeding male, who must fish for two or three babies and a mate, has to catch six to eight fish a day.

Ospreys have special adaptations that make them better fish-hunters. For one thing, the bottoms of their feet have many short spines that help them to hang onto a slimy fish. Many birds have three toes and a thumb, but the osprey can turn his third toe around, so he can have an extra-strong grip with two fingers and two thumbs. Ospreys have extremely sharp talons and a strong hooked beak for tearing fish into bite-sized pieces. They also have very oily feathers that help keep them dry when they splash into the water.

Nesting and raising young birds

Ospreys like to make their nests in dead trees because there are no leaves to get in the way of their wings. It is also harder for predators to climb a dead tree without the osprey seeing it. Many ospreys

build nests on power poles when there aren't enough dead trees around.

Ospreys are able to mate at 3 years old. When a male is ready to court a female, he performs the "sky dance" by flying around with a newly-caught fish or nesting material. Ospreys mate for life, and mated pairs come back to the same nest year after year.

If the pair has no nest, they both collect materials, like sticks and grass. Sometimes they also pick up plastic bags and fishing wire (which can kill the young). Year after year, the ospreys make these nests bigger and stronger so they won't get knocked down by high winds. An osprey nest can weigh up to 1,000 pounds, but it is not very deep inside and probably could not hold a person. Florida ospreys stay in Florida year round and lay their eggs between December and February. North of Florida, ospreys migrate south each year.

The eggs are about the same size as a chicken egg. They are cream-colored with spots. Both parents sit on the eggs. The mother does most of the sitting, and the father feeds her. Ospreys usually lay three eggs. When there isn't much food, the larger babies will peck at the smallest baby so they can get first chance at the food. There is a good chance this runt will die of starvation.

Young ospreys will practice flapping their wings 10-15 days before fledging (flying). They jump up and down on the nest until a wind gust carries them over the edge on their first flight. Osprey parents will fly past the nest with a fish and drop it into the water to help the babies catch their first fish. The babies can usually catch their own fish two or three days after fledging, but the parents will still bring food for a few weeks.

These fish hawks are a threatened species and protected by law in Florida.

References

Poole, Allen. Ospreys: A Natural and Unnatural History. Cambridge: Cambridge University Press. 1989.

Terres, John K., The Audubon Society Encyclopedia of N. American Birds. New York: Alfred A. Knopf, Inc., 1987.

Information provided by the E. Dale Joyner Nature Preserve at Pelotes Island near Jacksonville, 904-665-8856, <http://pelotes.jea.com>.



The ideal location of purple martin apartment houses is near water, close to a house or building and more than 40 feet from tall trees. Photo by George McBath.

death by an owl's talon or crow's beak comes through the entrance hole. They want to nest as far back from the hole as possible. Typical apartment units are 6"x6"x6", which is effective but small. By removing the back panel of back to back units the depth can be increased. Given the opportunity, martins always choose the deeper units.

3. Since female martins have a need for calcium during egg formation, some martin landlords mount a small tray of dried, crushed chicken egg shells on the colony support pole. Because Florida has lots of limestone deposits near the surface, I think there is plenty of calcium in the food web that martins feed from. Calcium supplements have never been necessary to attract purple martins in my experience.

Yearly Cycle of the Purple Martins

For Florida residents, a year in the lives of purple martins might be as follows. Almost all martins winter in southeastern Brazil where they fly

the coffee, sugar and citrus plantations feeding on insects. They migrate north to Florida by one of two routes. They leave the coast of northeast South America and island hop via the Lesser Antilles, Greater Antilles and the Bahamas to Florida; or they migrate north through Central America and congregate up on the northern tip of the Yucatan Peninsula and wait for a southwestern wind called the "Yucatan Express" to help push them in a 12-14 hour period across the Gulf of Mexico to Florida's shores.

South Florida purple martin enthusiasts eagerly anticipate, communicate via the internet, the first martin sighting, which often occurs in the first or second week in January. However, the majority of martins arrive sometime in late February and throughout March. Late stragglers, mostly first-year birds, may arrive through the month of April.

Most martins start nesting in late March and early April. It takes them 7-10 days to build a nest, mostly of pine needles and mud. Young birds lay two to four eggs, while older adults lay four to

six. Eggs are incubated for 14-16 days. Hatchlings leave the nest on average after 28 days.

A chick's first flight is a grand and important moment. Frequently five or six adults will fly with the chick urging it on to the nearest tree or telephone wire. If the fledgling falls short of the target and falls to the ground, it is abandoned. Outside of collecting nesting materials, purple martins rarely land on the ground.

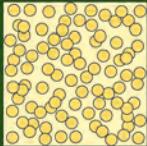
Once successfully fledged, the martins may return to their apartments for a few nights, but for the most part, nights are spent roosting in trees. Adults feed the young another 7-14 days after fledging, but from then on the young must catch their own insect food.

In south Florida, purple martins are seen accumulating in evening roosts on the coast as early as July. One evening a magic stimulus will set them off across the Gulf heading for Central or South America. Martins seen in Florida in October or November are most likely northern nesting birds passing through on their fall migration. In south

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Florida, February through July are the prime purple martin months.

Martins and Mosquitos

Much has been claimed about purple martin diets. One manufacturer of the aluminum apartments (in a display of questionable business ethics) claims purple martins can eat 2,000 mosquitoes a day. However, since martins are a diurnal creature and mosquitoes are crepuscular to nocturnal, martins do not eat that many mosquitoes.

Purple martins are the largest of seven U.S. nesting swallows and tend to feed on larger insects like bees, wasps, moths, locust, damsel and dragonflies. A conservative estimate of 3 to 6 percent of a martin diet might be mosquitoes. In areas of the more diurnal salt marsh mosquitoes, the percentage may be higher.

Dragonflies are one of the martin's favorite preys. Occasionally a dead, dried skeletal baby martin with a huge dragonfly stuffed in its throat will be found in an old nest, attesting to their excessive enthusiasm for these insects.

Landlord Duties

As a golf course superintendent or pur-

ple martin landlord, what responsibilities do you have? Duties can range from almost nothing to very extensive; it's your choice. They can be delegated to staff members, an interested resident or club member or a hired outside consultant like me. I don't recommend doing nothing but putting up the martin house. However, I do know of a couple of courses where the landlord effort is nil, but the martin colonies seem abuzz with activity during the nesting season.

It used to be an absolute rule that every fall apartments should be cleaned of old nests, and fresh nesting material and insect control be provided. When the Purple Martin Conservation Association did some research, they found that returning martins chose nest compartments that were not cleaned of old nest material over those that were cleaned out. Come to think of it, who emptied out the old nests before the advent of human-supplied housing? Nevertheless landlords who supply fresh nesting material and parasite control also seem to provide other needed activities.

Occasionally English sparrows and European starlings may monopolize martin housing. If so, housing must be lowered and be rid of the invaders' nests. Aside from displacing martins from

nesting, these sparrows and starlings often destroy martin eggs and kill martin young. Additionally, sparrows and starling young produced at these apartments will then go on to displace bluebirds, great crested flycatchers and woodpeckers from natural tree cavities. Better yet, eastern sparrows and European starlings are not protected by law and can be eliminated judiciously by pellet gun or traps available from the PMCA.

Some landlords may lower the housing every 5-7 days to check for egg theft, parasite problems, and predation. However, when the oldest young of the colony are 24 days old, apartment inspection should be discontinued in order to prevent premature fledging which can be tragic as mentioned earlier.

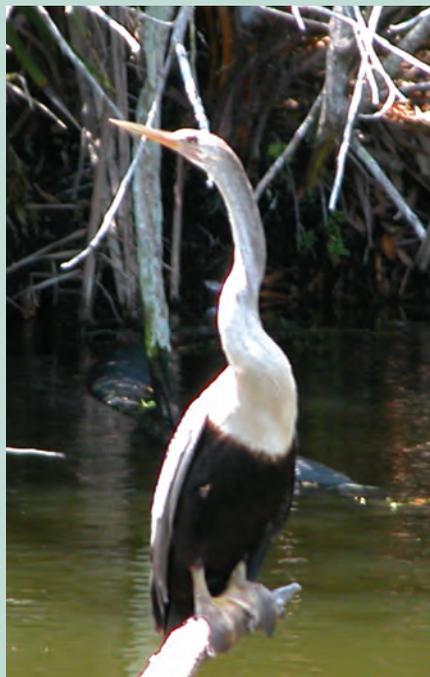
Lice and botfly are usually controlled by sprinkling or blowing diatomaceous earth into the nest material at winter cleaning. This natural product controls the parasites physically not chemically by the numerous silica spicules which scratch and penetrate the soft body of the lice and botfly larvae. If fire ant parasitism occurs, it is usually deadly, so if fire ant nests are nearby they should be controlled.

Some times rat snakes or black racers will climb the support poles and attack the

Pasadena Wildlife



This great white heron is one of many shorebirds at Pasadena.



Anhinga roosting among the mangroves.



A large flock of skimmers resting on a fairway.



A pair of cormorants wanders into skimmer territory and they hear about it.

Space limitations forced us to omit some photos of the abundant wildlife at Pasadena Yacht & Country Club, cover story of the Fall 2004 issue of the Florida Green. This avian collection is a bright addition to the Stewardship section.