

# It's a GAS



## Bob Lohmann makes a close examination of Basamid, one of golf's few future fumigation options.

**A**s we've all been waiting for the clock to run out on methyl bromide use, it's surprising to see just how few fumigation options have surfaced to fill that pending void.

We had the opportunity this summer to use one of those options, Basamid, as part of a summer greens renovation project at Brown County Golf Course in Oneida, Wis., up near Green Bay. It went very well, so I wanted to share our experience, and that of Brown County GC's superintendent Scott Anthes, as one window on the future.

There were two main factors that pointed us toward using the Basamid fumigation method at Brown County GC:

- Anthes has used Basamid before, to fumigate a chipping green;
- This summer project was approved very quickly (the way so many renovations are these days – when the money is made avail-

able) and we had very limited time to get all 18 greens ready, fumigate with MB, get seed in the ground, and achieve meaningful growth before the fall.

Instead, we at Lohmann Golf Designs worked with the contractor, Janesville, Wisconsin-based Links Land, LLC, to prepare a few greens at a time, after which Anthes and his crew would come in and fumigate. Basically, Anthes followed Links Land around the golf course as we went along.

"They would strip a green and the surrounds of all sod," Anthes recalls, "and then they'd grade them, eliminating all the sand dams at the edges. Then they came in and put in the slit drainage. Once the slit drainage was done, we fumigated to be sure we got all the *Poa* seed. After 5 days of fumigation, we aerified to let the gas escape. Then we came back and fine graded a bit, resodded the surrounds and seeded the greens with Luminary bentgrass."

These greens were interesting. They were old push-up jobs and drained very poorly. Indeed, that poor drainage and the infestation of *Poa*, which led to severe winter kill this past year (and several years prior), were two primary reasons for the renovation.

But this poor drainage was one of the reasons Basamid worked well on this job. Basamid is a granular product that emits a gas – the fumigant – when it comes into contact with water. That gas can move quite quickly through a green's drainage network. In fact, I'm not sure the deployment of Basamid is a very good idea on greens that drain too well, i.e. those modern, USGA-spec green profiles. If you're dealing with old push-up greens where you're sure there is little to no drain tile in them, it's a solid option.

Here's a good capsule of what to do and expect:

- Day 1, put the Basamid down and water heavily (avoid windy days, on account of its fine, granular nature; mornings make sense).
- Day 2, water less heavily.
- Day 3, water three times – morning, noon and night.



- Day 4, stop doing anything.
- Day 5, ditto.
- Day 6, plant a lettuce seed on the green – if that germinates in 2-3 days, you know you're ready to go.

To be honest, in an ideal world we would prefer fumigating with Basamid before enhancing a green's drainage capability via the slit-draining, but then you run the risk of re-contaminating the sterilized soil when you incorporate the drainage materials.

"I don't know that you have to fumigate before drainage necessarily," Anthes says. "I would suggest you don't run your outlets till afterward, or finalize your outlets – put the pipes up and leave them up in the air to reduce the chance of the Basamid traveling further down the tile lines... We did fumigate one green and afterward got a heavy rain. It got into an approach area that we hadn't intended to kill, but it popped back pretty quick."

This stuff dissipates very fast – within 30-60 minutes of activation – but it also travels fast. Obviously, use of this product and procedure requires an intimate knowledge of exactly what sort of drainage/tile network exists under and extending from every green.

Procedures vary from state to state, but in Wisconsin, you have to be a licensed applicator to do anything associated with Basamid. We didn't tarp the greens at Brown County, like you would if you fumigated with methyl bromide, but if we had, everyone who participated in that process would have to be licensed.

Anthes obtained that certification, but not without a small hiccup: He took the test and scored 16 out of 100.

"They said I'd get my score back in a week, but I didn't hear from them. So I called and the guy said there must be something wrong, because you could guess and get higher than 16! Turns out they gave me last year's test but scored it with this year's answers. I retook it and got a 90. You need a 70 to pass."

Anthes explained that one is only required to wear 14 mm gloves when working with Basamid, but he elected to go with the full hazmat suit and respirator – which scared the hell out of a few golfers.

"Yeah, everyone gets a little freaked out when you're in a respirator mask and white suit," he says. "I vividly remember a Tuesday



Top: Installing slit drainage. Middle: The final grade prior to fumigation. Bottom: An example of fumigant damage.

## Methyl bromide (MB)

A quick update/reminder on where things stand with regard to use of methyl bromide (MB) on golf courses.



Right now, supers are allowed to tap into existing stockpiles of MB until April 30, 2014. Whatever is purchased by that date can be used until its depletion. The GCSAA is continuing its lobbying effort: In July, MB registrants and GCSAA officially requested that the EPA amend the existing memorandum of understanding to allow golf course use of MB to remain on the label beyond the current deadline.

There's little question that MB is an effective fumigant, ridding soil of any/all traces of lingering grass strains (usually *Poa annua*) in preparation of reseeding or resodding greens. However, the writing's on the wall. What's more, iodomethane, or methal iodone, one MB alternative, is no longer available to golf courses, as last spring the manufacturer removed it from the market.





Brown County GC stayed open with temporary greens throughout the whole process, which was a little nerve-wracking.



Doing contour adjustments and applying the finish grade.

on the 14th green: a couple women golfers were asking, Are we all gonna die? Like I told them, according to the label, you don't need the mask and suit, but I'm overcautious. I didn't want it on my clothes during the day. But their concerns were just another reason I suggest applying the product early in the morning, before golfers show up.

"It's all part of the rigmarole, but I think it was worth it. You have to come up with a master plan for applying the product and be prepared to present it at any time. You have to have buffer signs, application site signs. Some state agencies have to be notified... The labels are a lot more strict than the labels guys are using for methyl bromide. To my knowledge there are no buffer zones with that, for example. After you're done, you have to generate a post-fumigation assessment for the state. You have to keep track of the weather, because if it's too windy and rainy, it's not practical to lay it down.

"We stayed open with temporary greens throughout the whole process, which was a little nerve-wracking. I might shut the course down if we fumigated again, but I'm very happy with how it all turned out. If the project involved doing all the greens at once, early enough in the year to use methyl bromide, and waiting for all of them to grow-in, that's one thing. But I needed to get seed in the ground ASAP, and the Basamid allowed that. I've got great growth on these greens because we didn't have to wait. I feel like we're in great shape headed into the fall and winter, the way the grass has come in."

And the cost? Well, that might be the best part. "I talked to a company about doing this with methyl bromide and they quoted me 50 grand. I put the Basamid on myself and it was \$9,500. Big savings," he says. **GCI**

*Bob Lohmann is founder, president, and principal architect of Lohmann Golf Designs and a frequent GCI contributor. Check out his blog at [lohmanncompanies.blogspot.com](http://lohmanncompanies.blogspot.com).*

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