Non-thermal Residue Management in Kentucky Bluegrass Seed Production Systems

Jodi Johnson-Maynard, Jack Robertson,
Karl Umiker, Donn Thill, and Janice Reed

Western Society of Soil Science
Park City, Utah
June 19-20, 2006

University of Idaho
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Study thwarts plan to buy out grass burning

Burn rights could cost clean air activists $6 million a year

By Benjamin Shors
Staff writer

COEUR d'ALENE — Buying burn rights from Kentucky bluegrass growers in North Idaho could cost more than $6 million a year, according to a University of Idaho study released Thursday.

The study, commissioned by opponents of field burning, found that the controversial practice increases the value of bluegrass crops by anywhere from $22 to $166 per acre each year.

"I don't think there's any question that burning is more economically profitable," said Larry Van Tassell, a University of Idaho agricultural economist. "But how much, that's still the question."

With 7,000 acres of bluegrass on the Rathdrum Prairie and 30,000 acres on the Coeur d'Alene Indian Reservation, buying the burn rights would cost between $835,000 and $6.14 million annually, according to data from the study.

The study put a chill on plans to buy out growers' burn rights, but a clean air advocate downplayed its results — even though her group paid for the study.

"It makes it difficult to come to any reasonable conclusions when you look and see that the estimates vary so widely," said Patti Gora, executive director of Safe Air For Everyone. "It really should point you in the direction of further serious study on a long-term basis."

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>
> **Larry Van Tassell,** *agricultural economist*

SAFE proposed a buyout of the growers' burn rights earlier this year, but dropped the idea after the group failed to secure money from state or private groups.

"We were trying to look at innovative solutions to try to address this issue," Gora said.

The rights would have been purchased in a similar manner to water rights buyouts, allowing the farmers to continue farming but paying them not to burn.

Rep. Wayne Meyer, R-Rathdrum, a longtime bluegrass farmer, said farmers agreed to discuss a buyout, but that SAFE pulled out of the discussions because of the cost.

Continued: **Grass burning/A9**

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Field burning suit looms

Doctors pursue legal remedy to grass smoke

By Winston Ross
Staff writer

COEUR d'ALENE — Field burning opponents threatened to file federal lawsuits against every grass grower in North Idaho on Wednesday to stop them from filling the skies with smoke each fall.

Safe Air For Everyone, a group of doctors opposed to field burning, sent registered letters to some 80 farmers in Kootenai and Benewah counties, giving them 90 days to respond.

The group, as required by federal law, also notified the U.S. Environmental Protection Agency, and others, including the U.S. attorney general. The EPA, too, has 90 days to take action before SAFE goes to court.

"While SAFE continues to work with the Legislature," said Patti Gora, the group's executive director, "a legislative solution is, at best, uncertain. The situation has not improved, and, in fact, continues to deteriorate."

State Rep. Wayne Meyer, however, suggested that SAFE's announcement is little more than a bartering tactic.

The group is working on a proposal to buy out farmers' burn rights, Meyer said, meaning farmers could be compensated for the profits they lose if they stop burning.

Though it hasn't been finalized yet, Meyer suspects SAFE is using the lawsuit threat to convince farmers to agree to the plan.

"I still have to look at the bottom line," Meyer said. "That's still in the works. All we have is kind of a skeleton of a proposal."

It might work, Meyer said, but he'd have to see the numbers.

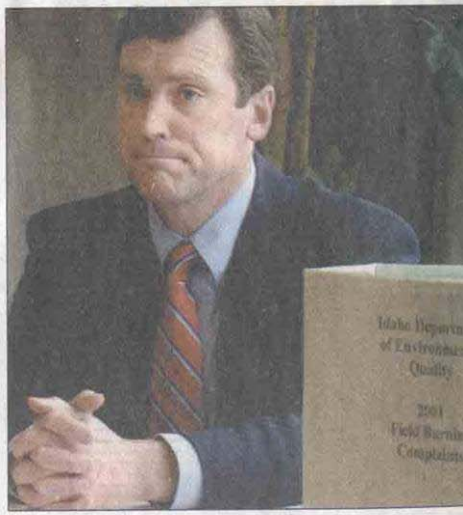
Asked if he was surprised at the threat of lawsuits, Meyer said "I kinda knew it was coming. I've been sued before."

Joel Gross, a Washington, D.C., lawyer handling the potential lawsuits for SAFE, denied that it was simply a negotiating tactic.

"Absolutely not," Gross said. "We are fully prepared to commence litigation. If it helps persuade them to go with the proposal, that's great."

The group intends to sue under the federal Resource Conservation and Recovery Act. Members of SAFE seek a legally binding, enforceable commitment to forever stop burning of residue in any commercial grass

Continued: **Field burning/A6**



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SAFE co-chairman Scott Burgstahler attends a news confere Coeur d'Alene Resort on his group's intention to file suit aga

Field-burning war heats up

Farmers consider changing livelihoods

By ERIC FLOWERS
Staff writer

COEUR d'ALENE — North Idaho bluegrass growers will burn fewer acres this year than anytime in recent memory, but the battle over agricultural burning has never been more intense.

Earlier this month, clean air advocates dragged North Idaho farmers into court seeking a temporary ban on burning until a lawsuit is resolved.

First District Court Judge John Mitchell has yet to rule, but many growers fear the worst for their industry.

"Frankly, facing this burn ban, a lot of people are considering their options," said Paul Stearns, Worley area farmer. "And the option that a lot of people are coming up with is to quit farming, idle the land and sell it for whatever use they can."

The continuing controversy over bluegrass burning has already prompted some growers to cut back production.

Bluegrass field burning has been the center of controversy since it became standard practice in this region more than 50 years ago. Growers say it's a cheap and effective way to remove residual straw from fields after harvest and control insects and disease while promoting strong yields in the next growing season.

SUNDAY Focus

But Idaho regulators are under increasing public pressure to ban field burning as Washington state did three years ago.

BURNING continued on A3

JASON HUNT/Press

Earl Clausen, a Waverly, Wash., grass and wheat farmer, stands in front of a massive stack of straw bales on his farm.

Regulations ge in way of study

By ERIC FLOWERS
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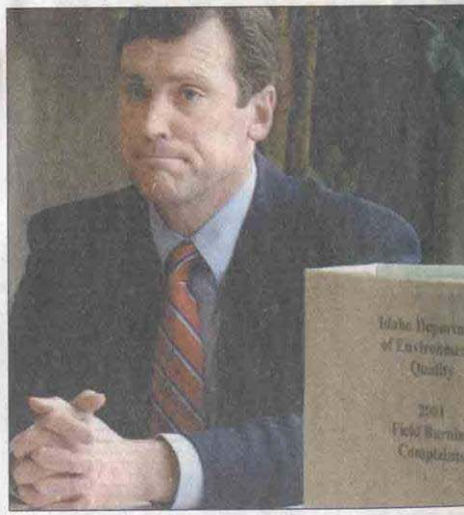

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Judge allows burning case to continue

Mitchell denies farmers motion to dismiss suit

By MIKE McLEAN
Staff writer

COEUR d'ALENE — As farmers on the Rathdrum Prairie burned hundreds of acres of bluegrass fields Monday, a judge allowed a lawsuit against them to go forward.

District Judge John Mitchell denied a farmers motion to dismisses a case that seeks to halt field burning on behalf of people with breathing difficulties.

Mitchell's ruling also states he will decide "as soon as possible" on a motion by burning opponents to enjoin the farmers from burning until the case is resolved.

Steve Berman, lead lawyer for the plaintiffs said Monday's ruling was the first time the issue has gone past a major legal hurdle.

DECISION continued on A2

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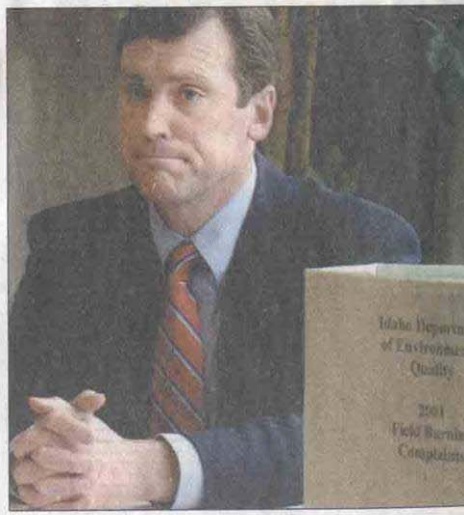

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A burning question

- About 135 producers farm 60,000 A of KBG in northern Idaho producing 36 million lb of seed annually, valued at $45 million

- Represents about 50% of USA production

- Sustained productivity has historically relied on open-field burning of residue

- **Public concern about air quality and health effects**

- **Bluegrass seed production systems that do not allow burning reduce the consecutive number of seed crops from about 10 to 3.**

- **More frequent establishment increases production costs, pest problems, and potential for soil erosion.**

Objectives:

- Determine the effectiveness of residue management techniques and their impact on seed yield
- Determine impacts of residue management practices on N cycling

Chris Ramsey Farm – ‘Alene’

Individual plots = 20 X 100 m, 4 reps.

Biomass Dynamics

- Periodic sampling of residue within a randomly placed 0.25 m^2 quadrat

- Standing biomass clipped at soil surface, non-standing collected with a rake

Nitrogen cycling

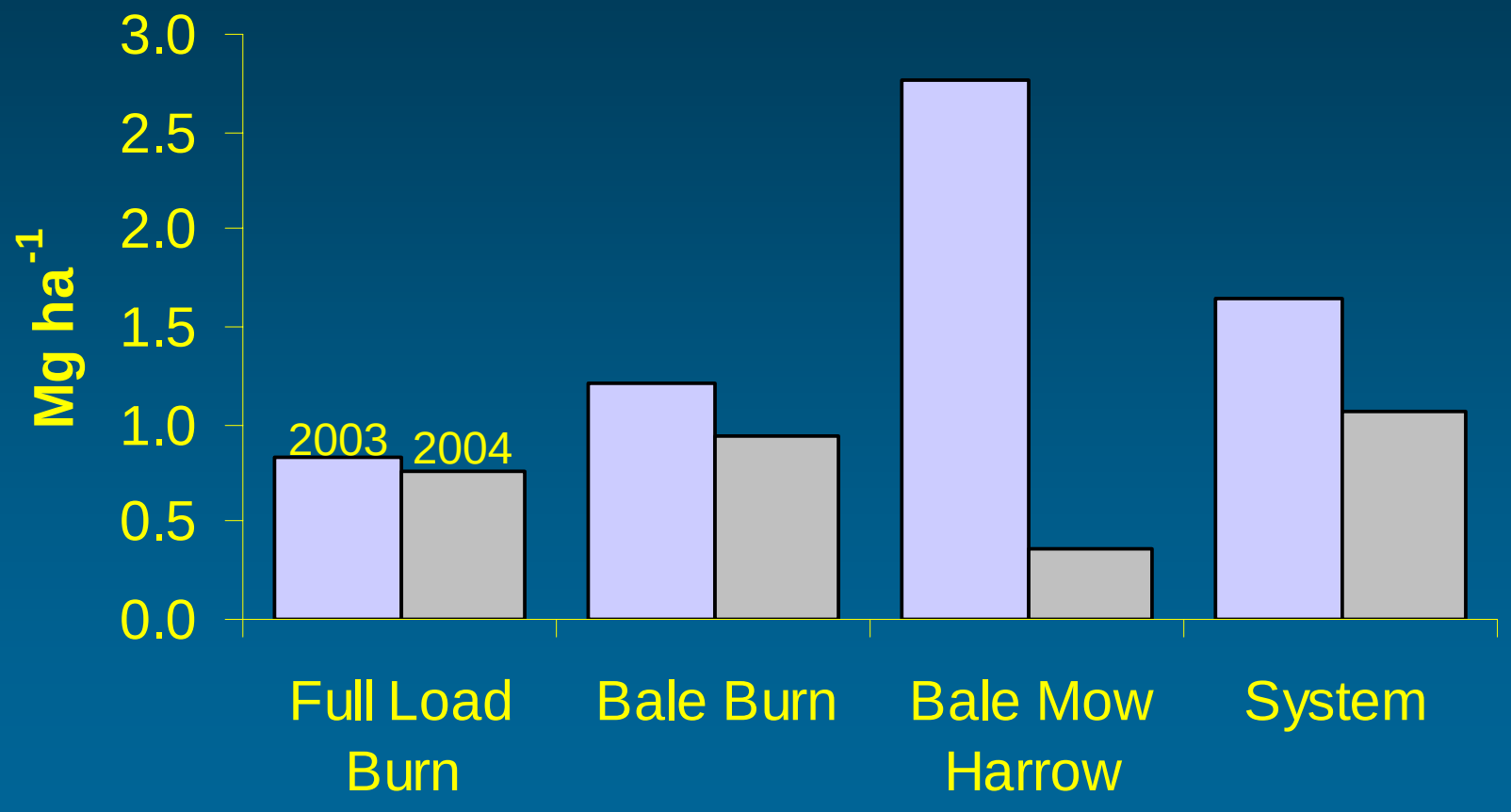
Approach: Static and dynamic monitoring approaches

Methods:

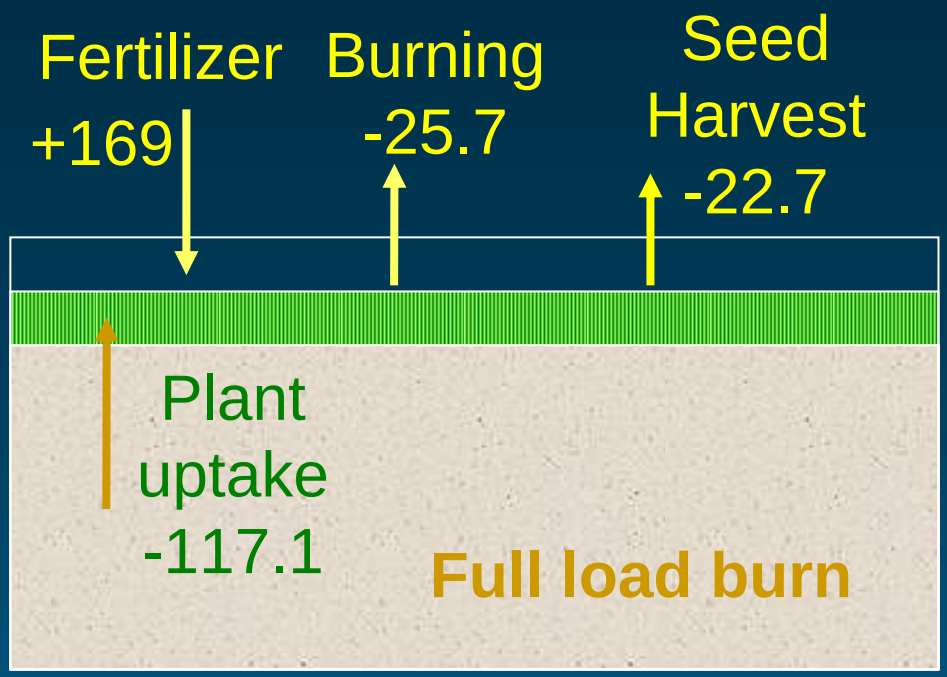
- periodic soil sampling
- soil-water sampling

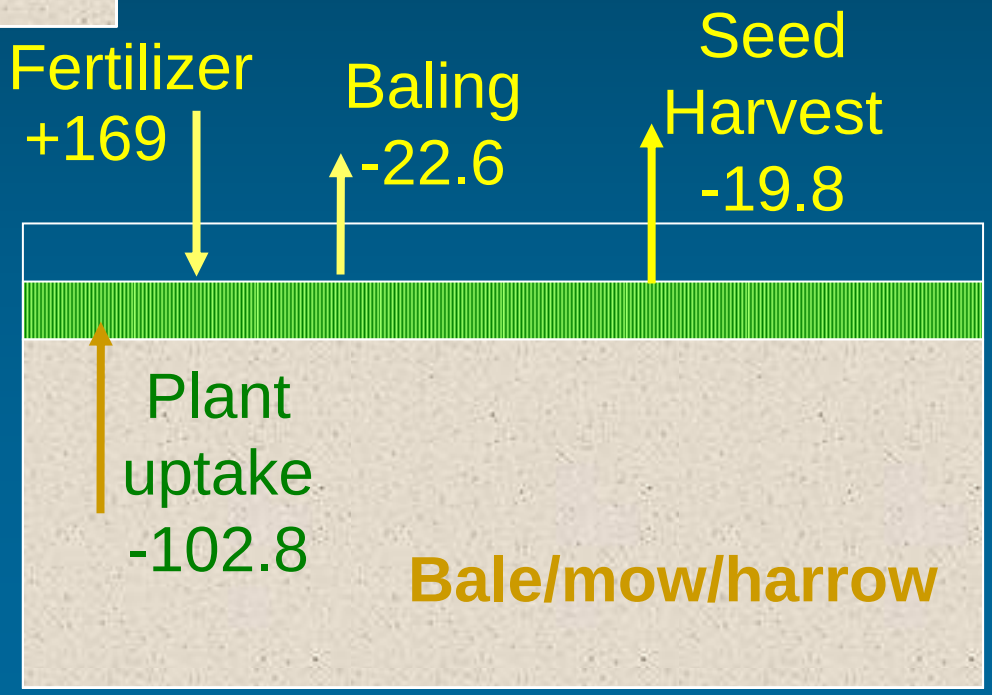
Year fall-summer	Treatment	% Residue Removal Stand.	Non-stand.	Comb.	Yield kg ha^{-1}
		%			
2003-2004	FLB	100 [a]	71 [a]	78 [a]	605 [a]
2003-2004	BMH	2 [b]	47 [b]	35 [b]	353 [b]
2004-2005	FLB	83 [a]	41 [a]	59 [a]	870 [a]
2004-2005	BMH	43 [b]	60 [a]	56 [a]	736 [a]
2005-2006	FLB	97 [a]	59 [a]	65 [a]	NA
2005-2006	BMH	4 [c]	+124 [b]	+79 [b]	NA

Non-standing residue accumulation



N fluxes in kg ha^{-1}

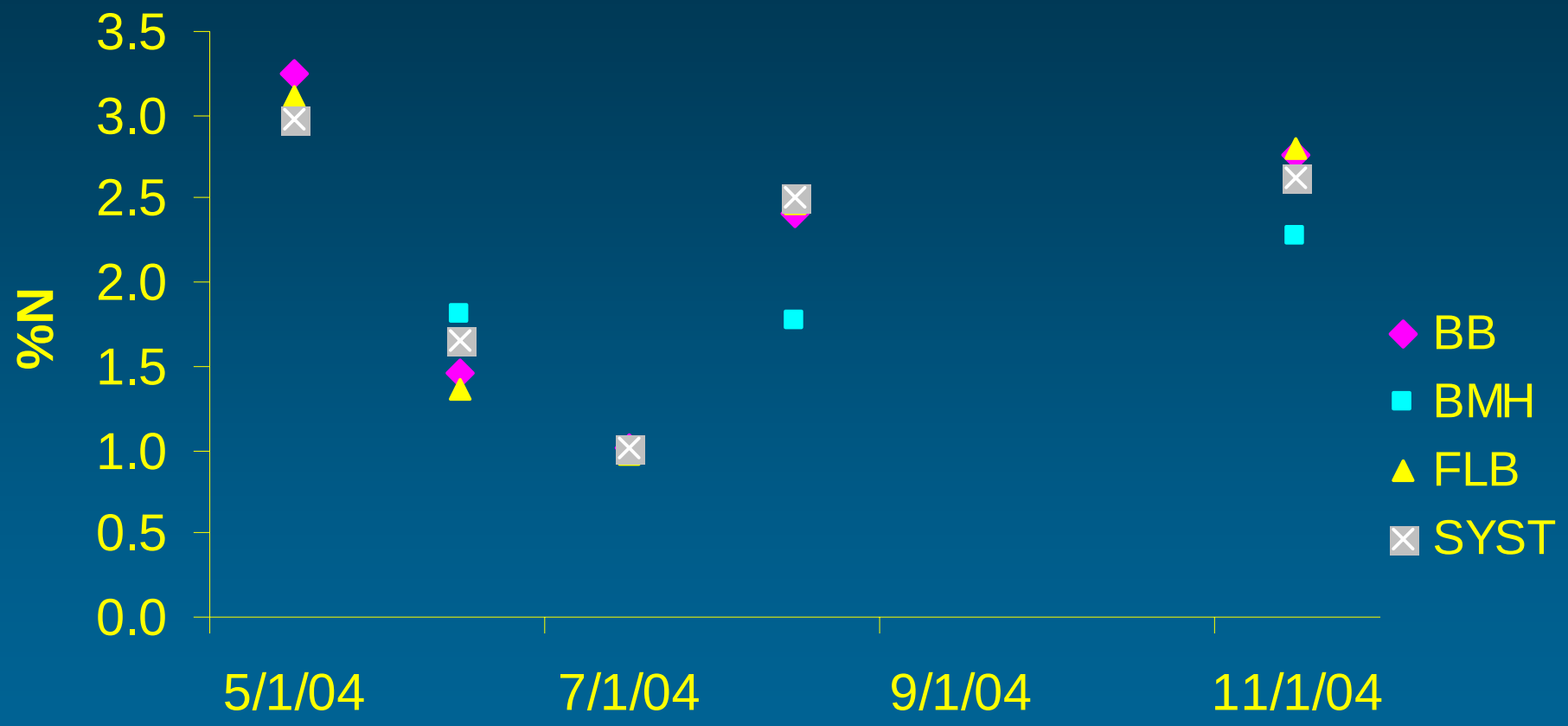




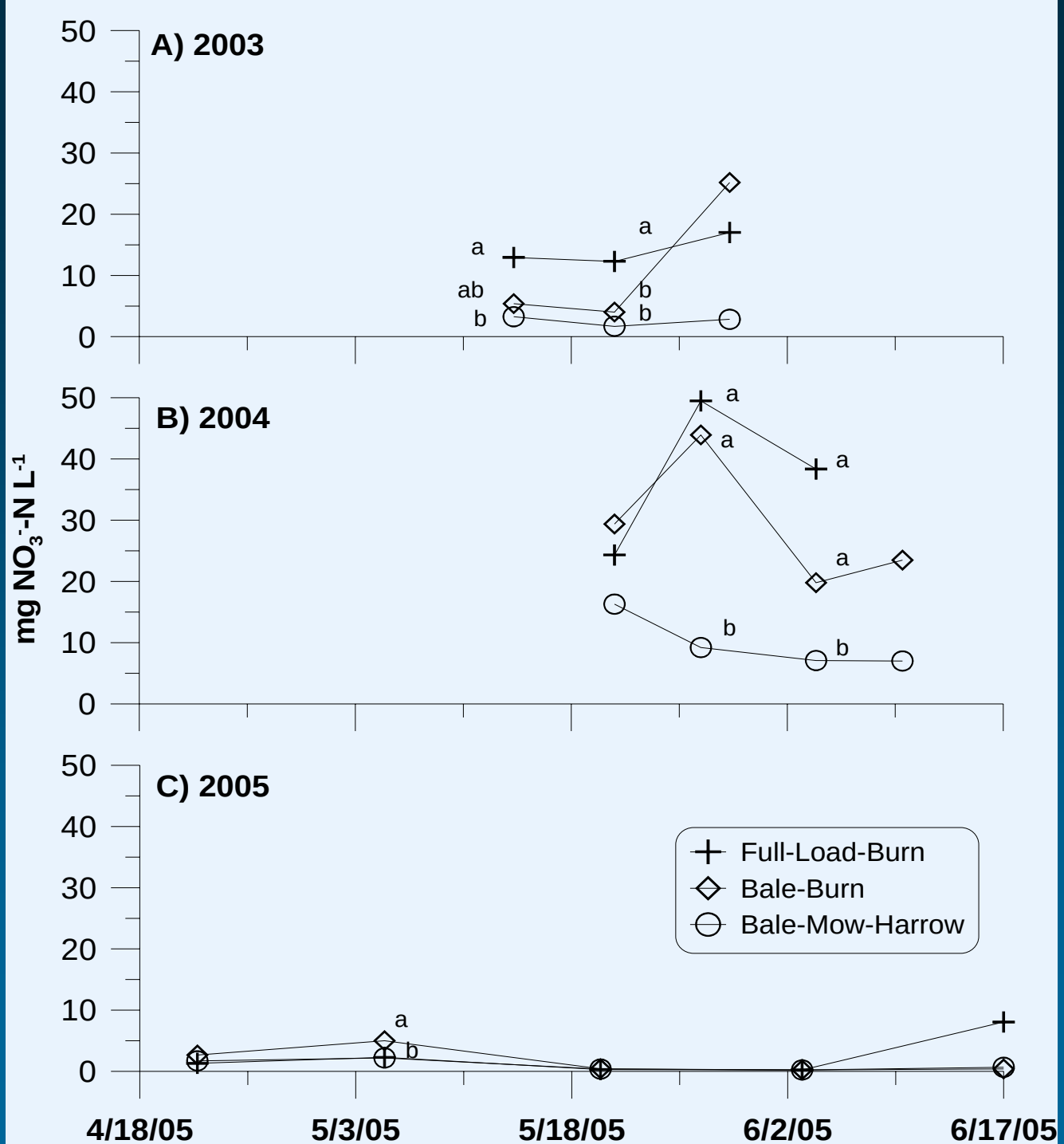
Non-thermal
Burn
System
Bale, mow, harrow
Bale/burn
Burn

Burn

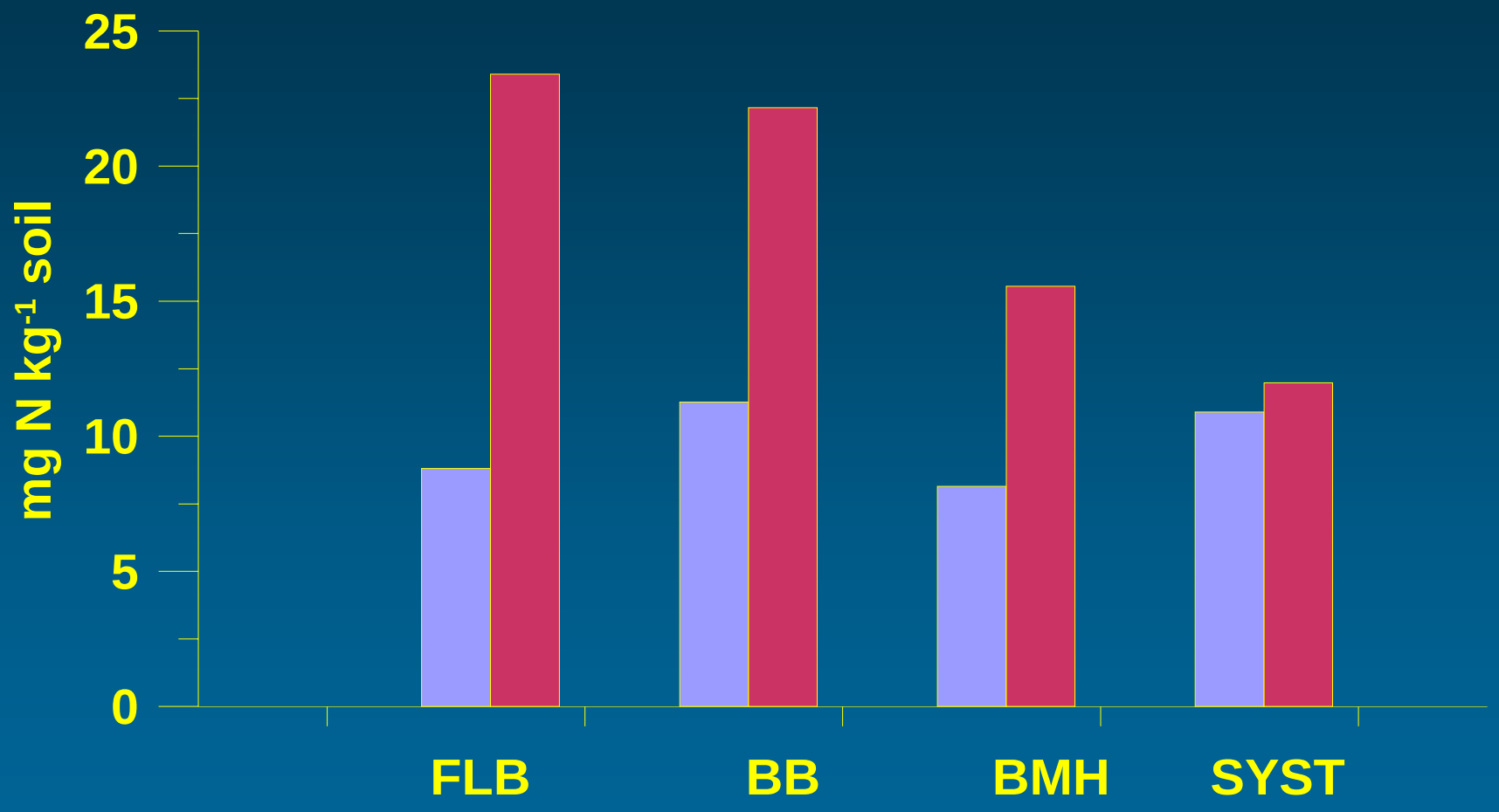
Standing biomass %N



Soil Water Nitrate at 10 cm



Plant available nitrogen 0-10 cm



Conclusions

- Burning generally removes more residue but the effectiveness of all practices vary with environmental conditions.
- Nitrogen availability may be lower in BMH systems at critical times.
- Burning consumed 27 to 54 kg biomass N ha^{-1}.
- Baling resulted in the removal of between 32 and 43 kg N ha^{-1}
- Plant uptake ranged from 76 to 130 kg N ha^{-1} and equaled 35 to 77% of the total N applied.