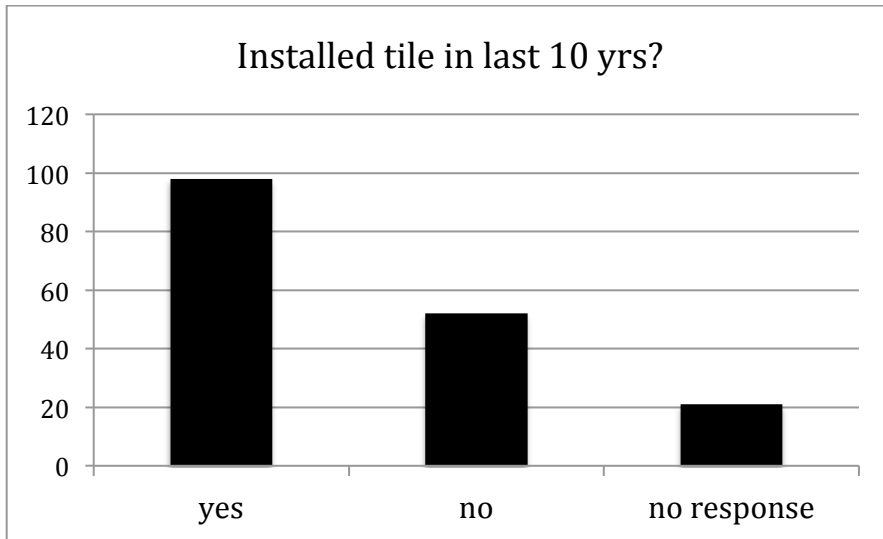


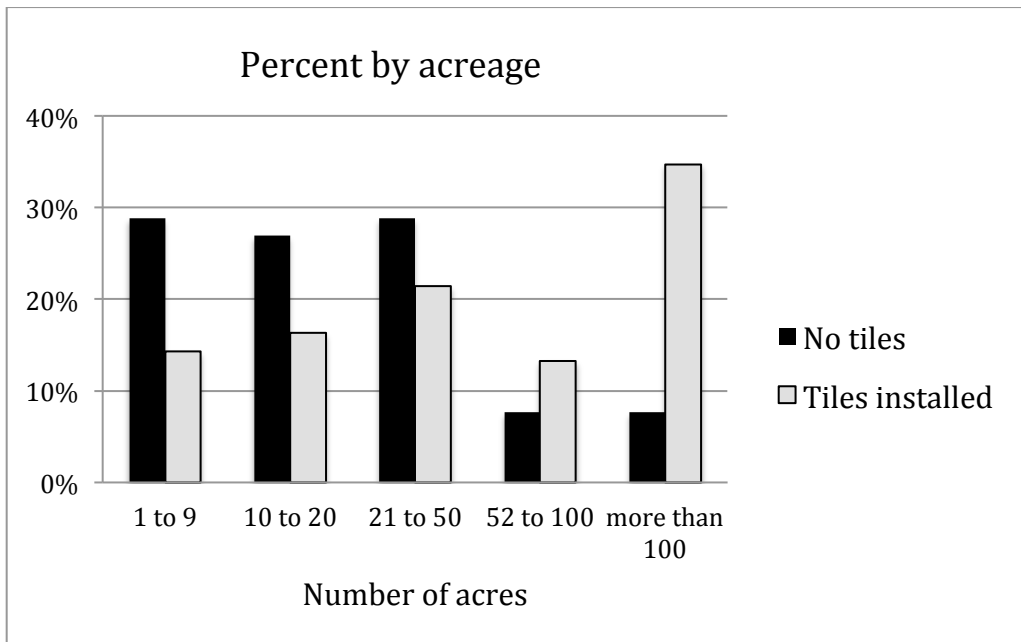
## Surveys

### January 2012 DRAINAGE (171 respondents)

1) In the last 10 years have you installed drainage tile (perforated pipe) on your bogs?

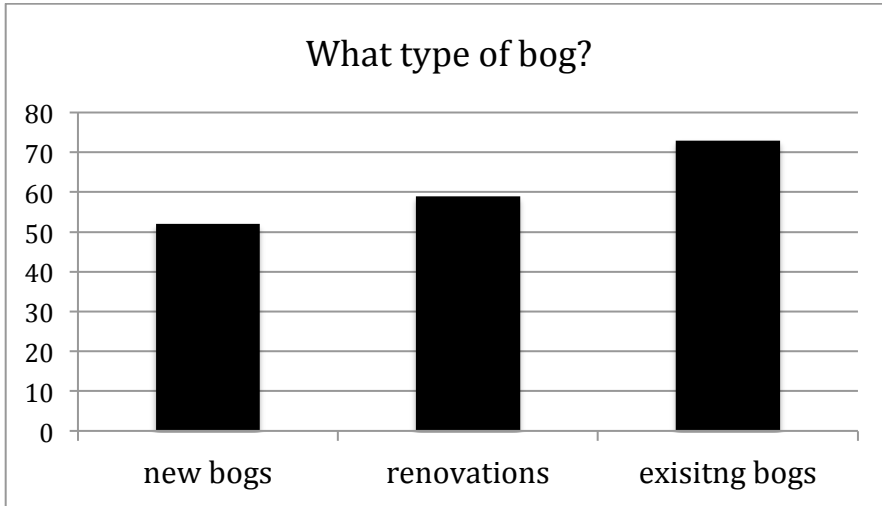


65% of those responding said yes

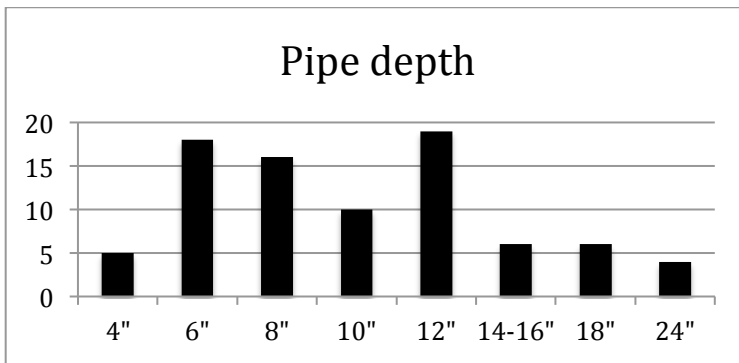


Large acreage growers were more likely to have installed tiles.

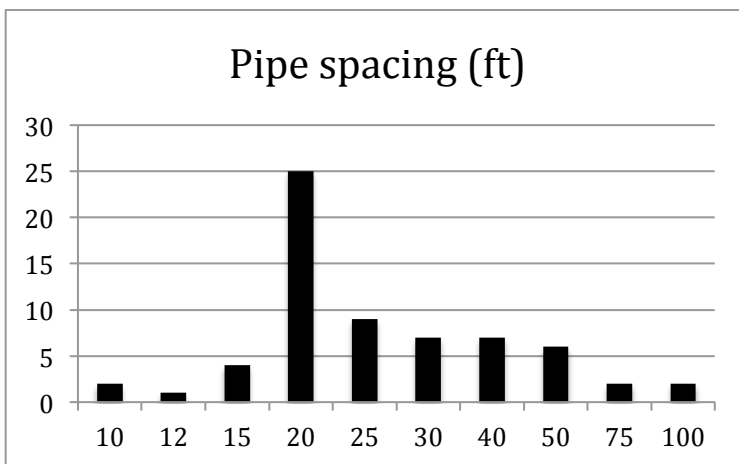
If yes, what type of bogs? (check all that apply) *10% of YES did not respond*



If yes, What depth? What lateral spacing (how far apart)?

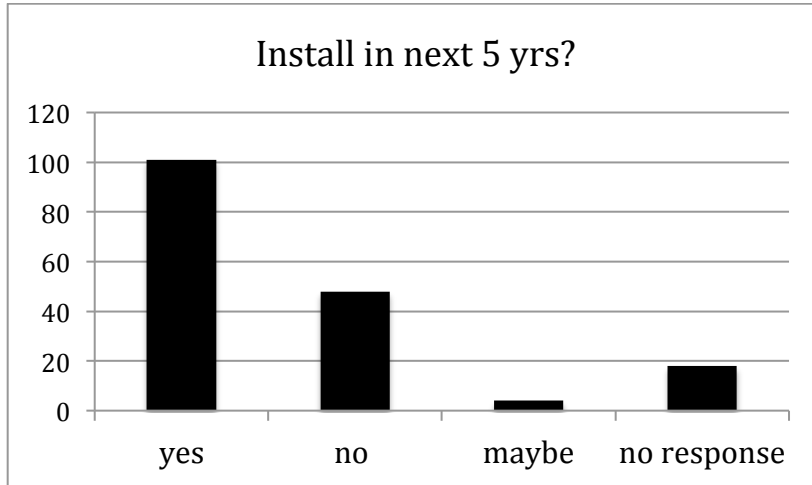


Depth was variable with most between 6 and 12 inches from the surface.



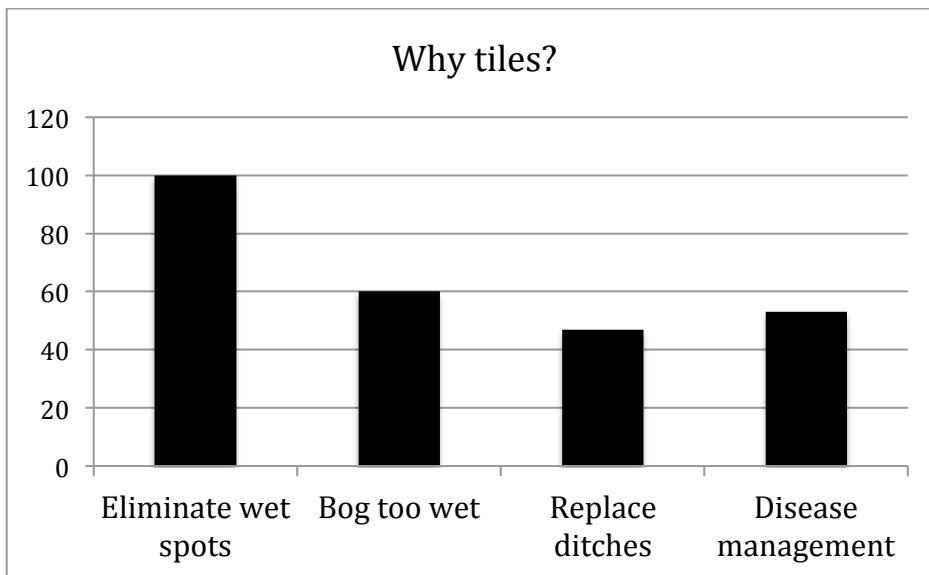
Overwhelmingly, spacing choice was at least 20 feet.

2) In the next 5 years, do you intend to install drainage tile?



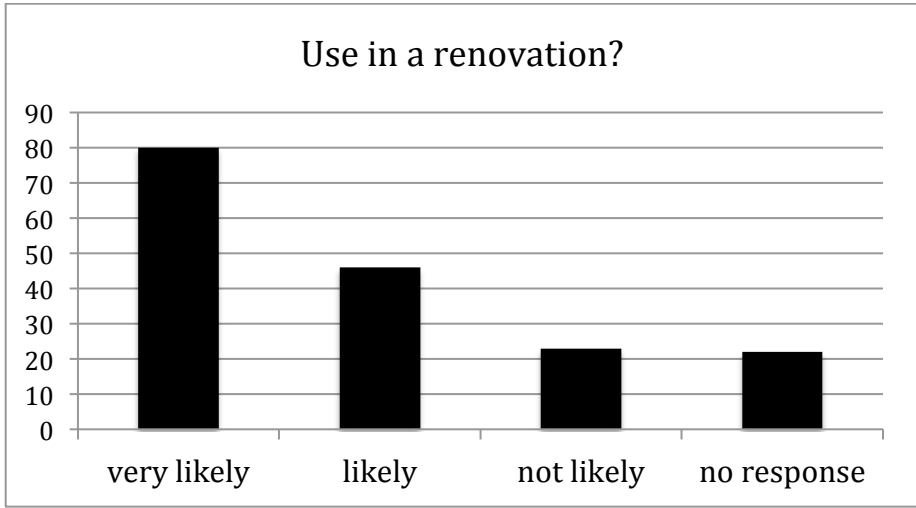
58% planned to install more drainage.

3) If you use drainage tiles, what reasons do you have for installing them?



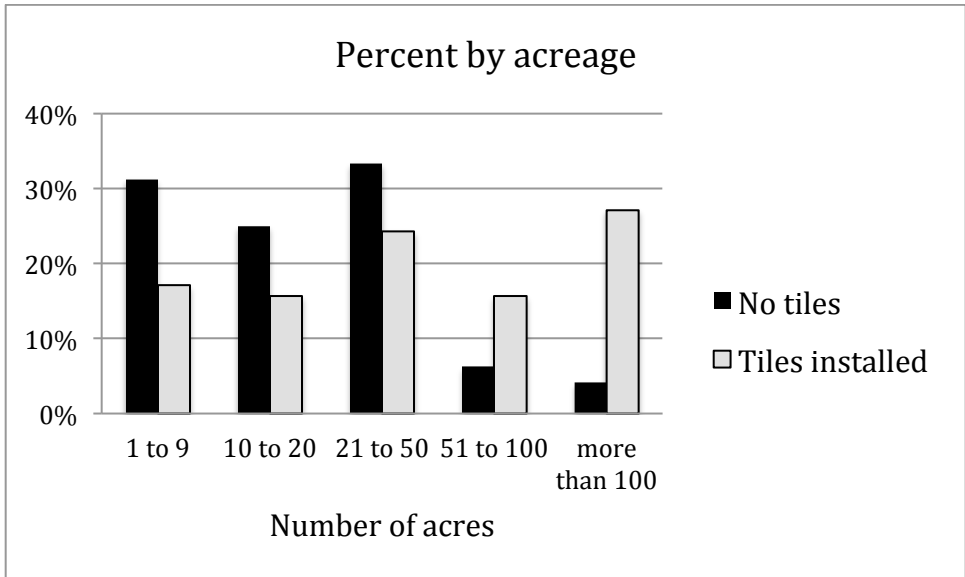
Several also cited sub irrigation and uniform soil moisture.

4) If you were to renovate a bog, how likely would you be to use drainage tile?



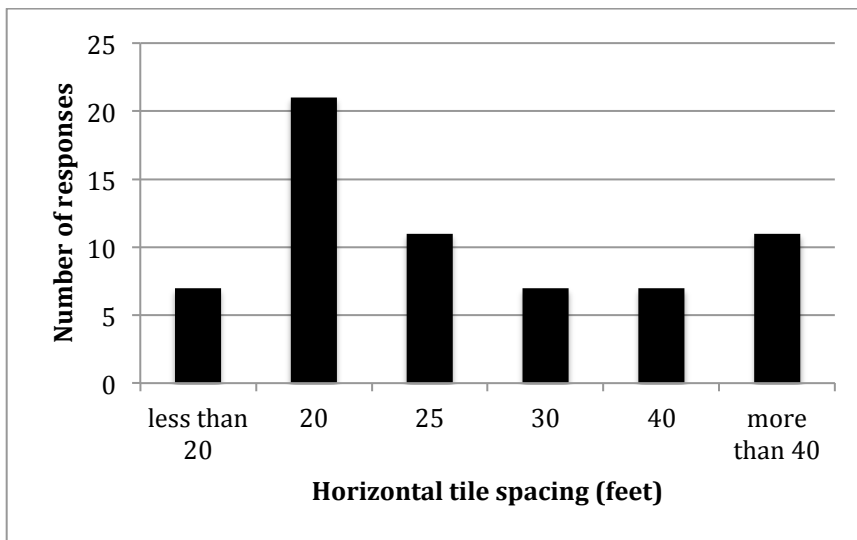
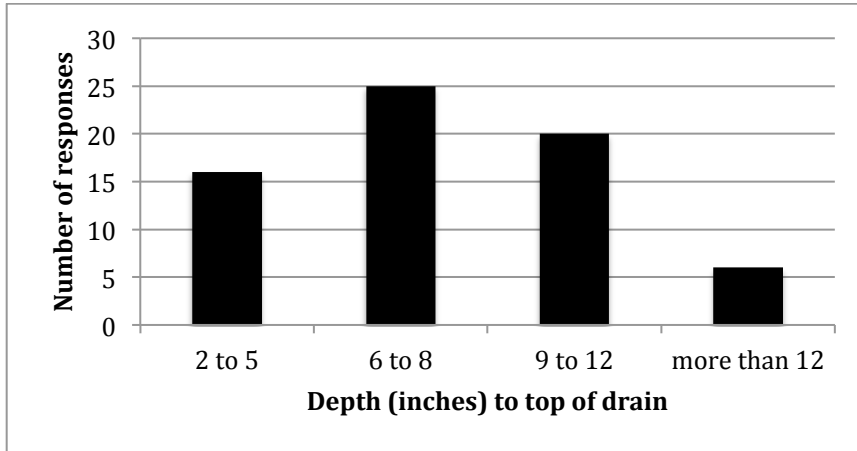
**Tile Drainage Survey 2013 [118 respondents]**

1. How many acres do you own or manage? 7600 acres represented
2. How many acres have tile drain?
  - 70 growers (60%; 6342 acres) had tile drain installed on some of their acres
  - 30% of their acres have tile (1956 acres)
  - 48 growers (40%; 1277 acres) had no tile drains



Confirms that large acreage growers are more likely to have tiles installed.

### 3. Describe your tile drains



Similar to the responses in the previous survey.

---

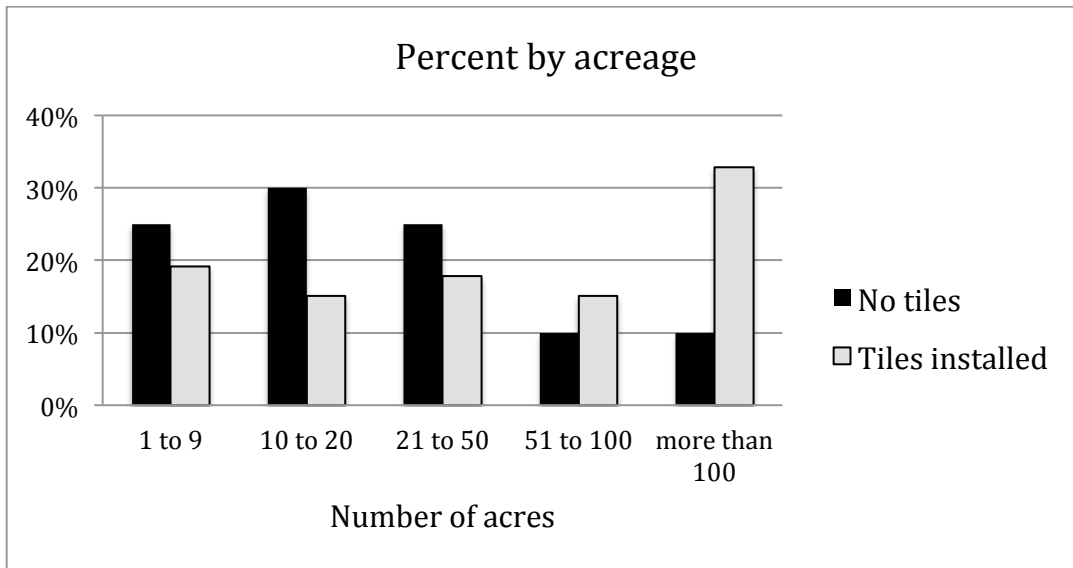
## 2014 DRAINAGE [115 respondents]

*In the past 2 years, we have asked you about your use of tile drains and how likely you would be to use them in the future. Today we are asking if your plans have changed due to industry financial conditions or other reasons.*

### 1) Do you have tile drains on your farm?

75 growers (65%; 7356 acres) had tile drain installed on some of their acres  
percent of those acres in tile is not known

40 growers (35%; 1581 acres) had no tile drains



Similar distribution as in the two previous surveys.

### 2) If in the last 2 years you were asked if you intended to install drainage tile in the future (1-5 years) - what would you have said?

YES 68 NO 47

This is 59% of respondents answering yes. In 2012, 58% of respondents answered yes to planning to install drains in the next 5 years.

*Comments on why no:*

Added ditches instead

Open ditches are easier to maintain

Had a bad experience filling ditches and adding tiles

Ditches are better

Financial reasons (several cited this)

3) If you would have answered YES - does that still hold today? - would you still plan to install drains in the next 1-5 years?

YES 60/68

4) If NO - what changed your mind? 8 changed from yes to no

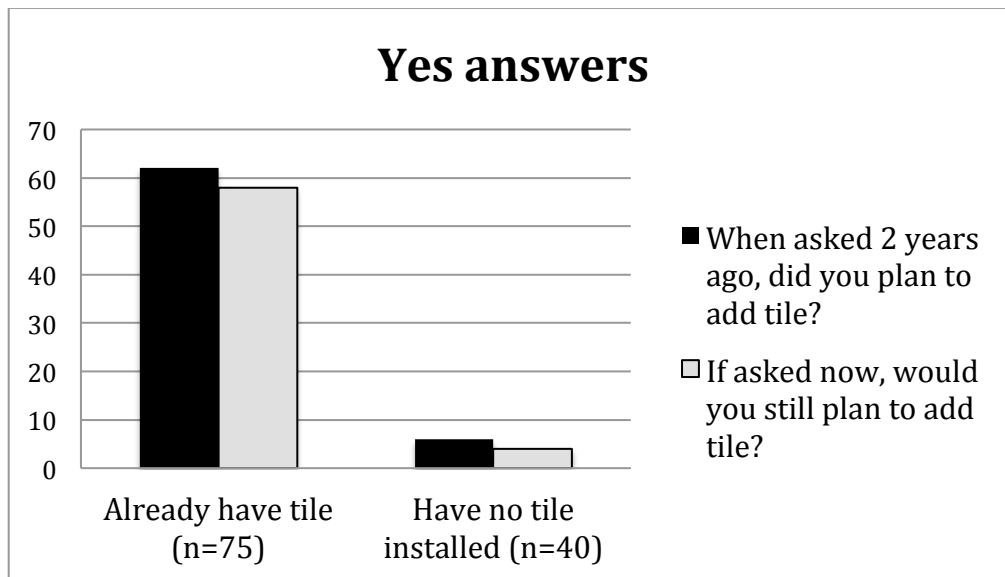
5 can no longer afford the investment 2 have become less impressed with tile use

other reason - please list:

Want to see more results before committing

Having reservations - will do some depending on soil type

Only in spots - not the entire bog (2)



Those that had tile were more likely to add more and more likely to continue with that decision. Many of the non-tile users were smaller growers that even two years ago found finances constraining.