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status of floating "Typha" mats in a freshwater marsh = Der Einfluss der

Drainage, kontrolliertem Abbrennen und Düngung auf die Nährstoffverhältnisse in schwimmenden "Typha"-Beständen

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APPENDICES

Legend to the appendices 1-23

Fertilizer treatments:

- C = no fertilizer added
- N = nitrogen added (200 kg/ha)
- P = phosphorus added (200 kg/ha)
- L = lime added (625 kg/ha)
- NPL = nitrogen, phosphorus and lime added at above rates

Significance testing:

Tested were the pairwise comparisons listed below: if two of the means compared share the same letter they are not significantly different at P<0.05. Compared were (see Table below):

- The two draining means (A) (all burning and fertilizer treatments combined; n = 50);
- the two burning means (B) (all draining and fertilizer treatments combined; n = 50);
- the two burning means within a single draining regime (C and D, respectively) (all fertilizer treatments combined; n = 25);
- any two fertilizer treatment means (E) (all draining and burning treatments combined; n = 20);
- any two fertilizer treatment means within a single draining treatment (F and G, respectively) (the two burning treatments combined; n = 10);
- any two fertilizer treatment means within a single burning treatment
 (H and I, respectively) (the two draining treatments combined; n =
 10);
- any two fertilizer treatment means within a single draining ${\bf x}$ burning regime (K, L, M and N, respectively).

Sample sizes and pairwise comparisons tested. Numbers indicate the sample sizes on which means are based on, letters in parentheses the treatments for which pairwise comparisons were made. (For experimental design see Chapter 3.1)

| Draining and burning | | Fertili | zer treatme | ents | |
|--|--|---------------------|------------------------|--------------------------|---|
| treatments | Mean | С | NPL N | P | L |
| Mean | 100 ¹ | 20 (E) | 20 (E) 20 | O (E) 20 | (E) 20 (E) |
| Undrained Drained | 50 ² (A 50 ² (A | | 10 (F) 10 10 (G) 10 | 10 100 | |
| Unburned Burned | 50 ² (B) | 8000000 10240000000 | 10 (H) 10 10 (I) 10 | ORD RESIDENCE VIEW ORDER | (H) 10 (H) (I) 10 (I) |
| Undrained-unburned Undrained-burned | 25 ³ (C 25 ³ (C | 9 10 100 100 | | 5 (K) 5 5 (L) 5 | TOTAL SECTION OF THE PROPERTY |
| Drained-unburned Drained-burned | 25 ³ (D) | | | 5 (M) 5 5 (N) 5 | |

In appendices 39 and 40 the indices 1) = 40, 2) = 20, 3) = 10

Appendix 1. Start of shoot emergence (days after May 15)

| Draining and burning | Fertilizer treatments | | | | | |
|----------------------|-----------------------|-------|------------|----------|-----------|---|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 5.5 | - | - | - | - | - |
| Undrained | 0.0 a | - | - | _ | = | - |
| Drained | 11.0 b | - | - | - | - | - |
| | | S | hoot emerg | gence st | arted | |
| Unburned | 5.5 | befor | re burning | and fe | ertilizer | |
| Burned | = | t. | reatments | were a | plied | |
| | | | | | | |
| Undrained-unburned | 0.0 | - | - | - | | - |
| Undrained-burned | - | - | _ | - | - | - |
| | | | | | | |
| Drained-unburned | 11.0 | - | 7 | - | - | - |
| Drained-burned | - | - | _ | - | - | |

Appendix 2. Shoot density on June 12 (shoots per square meter)

| Draining and burning treatments | Mean | Fertili C | zer trea NPL | tments N | P | L |
|--|----------------|--------------|----------------------|-------------|---|---|
| Mean | 5.7 | - | : | - | - | - |
| Undrained Drained | 8.2 a 3.2 b | - | - | - | - | - |
| Unburned Burned | 4.4 a 7.0 b | | zer had oplied by | 1950 | | |
| Undrained-unburned Undrained-burned | 7.4 a 9.0 a | - | - | - | - | - |
| Drained-unburned Drained-burned | 1.4 a 7.0 b | - | - | - | - | - |

Appendix 3. Shoot density on June 19 (shoots per square meter)

| Draining and burning | | Fertili | zer trea | tments | | |
|----------------------|---------------|---------|-----------------|-------------|------------|----------------|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 17.9 | 16.0 a | 17.2 a | 15.5 a | 21.0 a | 19.8 a |
| Undrained | 21.3 a | 21.3 a | 19.6 a | 17.6 a | 25.8 a | 22.1 a |
| Drained | 14.5 b | 10.7 a | 14.8 a | 13.4 a | 16.2 a | 17.6 a |
| | | | | | | |
| Unburned | 18.0 a | 16.5 a | 16.9 a | 14.5 a | 23.8 a | 18.6 a |
| Burned | 17.8 a | 15.5 a | 17.6 a | 16.5 a | 18.2 a | 21.0 a |
| | | | | | | |
| Undrained-unburned | 20.2 a | 21.3 a | 19.3 a | 14.5 a | 26.9 a | 19.3 a |
| Undrained-burned | 22.3 a | 21.3 a | 20.0 a | 20.7 a | 24.8 a | 24.8 a |
| | | | | | | |
| Drained-unburned | 15.8 a | 11.7 a | 14.5 a | 14.5 a | 20.7 a | 17.9 a |
| | 1980 CAN CUTY | 222 140 | 92000 (CC) 1000 | 200 200 200 | E20020 100 | 190 FG - 100 T |
| Drained-burned | 13.2 a | 9.6 a | 15.1 a | 12.4 a | 11.7 a | 17.2 a |

Appendix 4. Shoot density on June 19 in percent of final shoot density

| Draining and burning | Fertilizer treatments | | | | | |
|----------------------|-----------------------|---------|---------|---------|---------|---------|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 63.9 | 63.3 a | 57.5 a | 57.4 a | 71.6 a | 69.7 a |
| Undrained | 69.9 a | 79.7 ab | 58.6 b | 59.0 b | 82.5 a | 69.8 ab |
| Drained | 57.9 b | 46.9 a | 56.5 a | 55.8 a | 60.8 a | 69.5 a |
| Unburned | 67.2 a | 67.0 a | 59.3 a | 64.8 a | 81.7 a | 63.0 a |
| Burned | 60.7 a | 59.6 a | 55.8 a | 50.0 a | 61.5 a | 76.4 a |
| Undrained-unburned | 69.4 a | 75.7 ab | 57.9 b | 61.1 ab | 85.4 a | 66.8 ab |
| Undrained-burned | 70.4 a | 83.8 a | 59.2 a | 56.9 a | 79.5 a | 72.9 a |
| Drained-unburned | 65.0 a | 58.2 a | 60.7 a | 68.6 a | 78.1 a | 59.2 a |
| Drained-burned | 50.9 a | 35.5 a | 52.3 ab | 43.0 ab | 43.6 ab | 79.8 b |

Appendix 5. Final shoot density (shoots per square meter)

| Draining and burning | | | zer trea | | | |
|----------------------|--------|--------|----------|--------|--------|--------|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 28.6 | 25.4 a | 31.1 a | 28.7 a | 29.0 a | 28.8 a |
| Undrained | 31.3 a | 27.4 a | 34.8 a | 31.0 a | 31.0 a | 32.6 a |
| Drained | 25.8 a | 23.3 a | 27.4 a | 26.4 a | 27.0 a | 25.1 a |
| | | | | | | |
| Unburned | 27.0 a | 25.6 a | 28.2 a | 23.0 a | 28.2 a | 29.9 a |
| Burned | 30.0 a | 25.2 a | 33.9 a | 34.3 a | 29.8 a | 27.7 a |
| | | | | | | |
| Undrained-unburned | 29.6 a | 29.0 a | 33.7 a | 24.6 a | 30.6 a | 30.0 a |
| Undrained-burned | 33.1 a | 25.9 a | 35.8 a | 37.3 a | 31.4 a | 35.2 a |
| Drained-unburned | 24.4 a | 22.2 a | 22.7 a | 21.5 a | 25.7 a | 29.9 a |
| Drained-burned | 27.3 a | 24.5 a | 32.1 a | 31.3 a | 28.2 a | 20.2 a |
| Diained-Dulined | 21.3 a | 24.5 d | 32.1 a | 31.3 d | 20.2 d | 20.2 a |

Appendix 6. Shoot height on June 19 (cm)

| Draining and burning treatments | Mean | Fertili C | zer trea NPL | tments N | P | L |
|-------------------------------------|--------|------------------|-----------------|------------------|---------------|------------------|
| Mean | 44.3 | 42.4 a | 42.4 a | 45.2 a | 46.6 a | 44.7 a |
| Undrained | 57.7 a | 56 7 a | 55.7 a | 57.2 a | 61.4 a | 57.4 a |
| Drained | 30.8 b | 28.2 a | 29.1 a | 33.2 a | | 32.0 a |
| Unburned | 53.1 a | 52.6 a | 52.4 a | 53.7 a | 54.0 a | 53.0 a |
| Burned | 35.4 b | 32.3 a | 32.4 a | 36.7 a | 39.3 a | 36.4 a |
| Undrained-unburned Undrained-burned | 68.1 a | 68.4 a 45.1 a | 68.0 a | 67.2 a 47.2 a | 70.3 a 52.4 a | 66.4 a 48.3 a |
| Unar armed-burned | 47.3 D | 45.1 a | 43.4 a | 47.2 d | 52.4 a | 40.3 a |
| Drained-unburned | 38.2 a | 36.9 a | 36.8 a | 40.2 a | 37.7 a | 39.5 a |
| Drained-burned | 23.5 b | 19.5 a | 21.3 a | 26.1 a | 26.1 a | 24.5 a |

| Appendix 7. Final shoot height (cm) | | | | | | | |
|--|--|------------------|------------------|----------------------|-------------------|---------------------|--|
| Draining and burning treatments | Mean | Fertili: C | zer treat NPL | tments N | P | L | |
| Mean | 140.1 | 126.9 a | 161.1 b | 148.6 b | 134.0 a | 129.8 a | |
| Undrained Drained | De mecanistron s d e mass de accide | | | 152.9 ab 144.2 bc | | | |
| Unburned Burned | | | | 159.1 b 138.0 a | | | |
| Undrained-unburned Undrained-burned | | | | 161.7 a 144.1 ab | | | |
| Drained-unburned Drained-burned | | | | 156.5 ab 131.9 ab | | | |
| Appendix 8. Basal shoot circumference (mm) | | | | | | | |
| Draining and burning treatments | Mean | Fertili: C | zer trea | tments N | P | L | |
| Mean | 62.9 | 54.6 a | 77.9 b | 73.7 b | 55.9 a | 52.4 a | |
| Undrained Drained | 65.6 a 60.3 b | | | 74.7 cb 72.7 b | 63.3 ab 48.5 a | | |
| Unburned Burned | 64.9 a 61.0 a | | | 80.8 b 66.7 b | 57.0 a 54.8 a | | |
| Undrained-unburned Undrained-burned | | | | 80.0 c 69.5 bc | | VIENCE VECTOR VIENE | |
| Drained-unburned Drained-burned | | 54.3 a 52.1 a | | 81.6 b 63.1 ab | 48.6 a 48.3 a | | |
| Appendix 9. Number of | leaves | per shoo | t | | | | |
| Draining and burning treatments | Mean | Fertili C | zer trea NPL | tments N | P | L | |
| Mana | 0 20 | 7 74 - | 0.63 % | 0 00 1 | 7 07 - | 7 60 - | |

| Draining and burning | | Fertiliz | er treat | ments | | |
|----------------------|-------------------|---|----------------|--------------|------------|----------------|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 8.39 | 7.74 a | 9.63 b | 9.02 b | 7.97 a | 7.60 a |
| Undrained | 8.42 a | 7.84 a | 9.31 b | 8.81 ab | 8.33 ab | 7.80 a |
| Drained | 8.37 a | 7.63 a | 9.95 b | 9.24 b | 7.60 a | 7.40 a |
| Unburned | 8.49 a | 7.89 a | 9.33 b | 9.66 b | 7.82 a | 7.73 a |
| 202 867 | 1957 1950000 1950 | The six of | 100 100000 000 | 1000 NW 1110 | NEW COLUMN | 10.70 |
| Burned | 8.30 a | 7.58 a | 9.93 b | 8.39 a | 8.12 a | 7.48 a |
| Undrained-unburned | 8.71 a | 8.24 a | 9.33 a | 9.49 a | 0 30 5 | 8.17 a |
| | | | | | | |
| Undrained-burned | 8.13 a | 7.44 a | 9.28 b | 8.13 ab | 8.37 ab | 7.43 a |
| | 200 | | | <u> </u> | | Name of States |
| Drained-unburned | 8.26 a | 7.54 a | 9.33 b | 9.84 b | 7.33 a | 7.29 a |
| Drained-burned | 8.47 a | 7.72 a | 10.59 b | 8.65 a | 7.87 a | 7.52 a |

Appendix 10. Length of the assimilation period 0% (days)

| Draining and burning | | Fertiliz | er treatm | ents | | |
|---|--|-----------------------|-------------------------|--|----------------------|-------------------------|
| | Mean | C | NPL | N | P | L |
| cr eachieres | rican | • | IVI D | | • | |
| Mean | 149.8 | 146.6 a | 154.2 b | 155.2 b | 148.8 ab | 143.9 a |
| Undrained | 160 E a | 155 2 2 | 165.2 b | 166 6 h | 161.2 ab | 15/ 2 2 |
| | | | | VIV. 18-1-11 (1971) | | |
| Drained | 139.0 D | 138.1 ab | 143.3 ab | 143.9 D | 136.5 ab | 133.4 a |
| Unburned | 155 2 2 | 152 6 ah | 160.9 b | 160 6 h | 153.5 ab | 147 7 2 |
| | | (800)(50)(50)(50)(50) | 147.6 ab | ETROPOSTO (FOR | | NOT THE PROPERTY OF THE |
| Burned | 144.3 D | 139.7 a | 147.6 ab | 149.9 D | 144.2 ab | 140.1 a |
| Undrained-unburned | 160 0 3 | 165 0 ab | 173.7 b | 176 0 b | 168.4 ab | 161 2 a |
| | | | | | | |
| Undrained-burned | 152.0 D | 144.5 a | 156.7 ab | 15/.1 D | 154.0 ab | 147.5 ab |
| Drained-unburned | 141 5 2 | 141 2 2 | 148.0 a | 145 2 2 | 138.6 a | 12/ 1 2 |
| | | | | DEC 40 10 ID | 1996 (1991 1991 1994 | ID 2007 00 5000 |
| Drained-burned | 136.6 a | 134.9 a | 138.5 a | 142.6 a | 134.3 a | 132.8 a |
| Appendix 11. Length of | the ass | similation | n period | 50% (day: | 5) | |
| | | | | | | |
| Draining and burning | | 0.000 | er treatm | 5.2005 | | |
| treatments | Mean | С | NPL | N | P | L |
| | | | | | | |
| Mean | 97.3 | 95.6 a | 97.7 a | 103.1 b | 95.8 a | 94.4 a |
| 4 | g (25) 18 (28) | to the second | 50 V S S | | | 8 = |
| | TOTAL CONTROL STATE OF THE STAT | 105.5 a | 108.0 a | PORTOR CONTRACTOR CONT | 107.6 a | 106.2 a |
| Drained | 86.2 b | 85.6 ab | 87.5 ab | 91.2 b | 84.1 a | 82.6 a |
| | | | | | | |
| Unburned | 99.3 a | 98.1 ab | 100.0 ab | 103.7 b | 97.6 ab | 97.1 a |
| Burned | 95.3 b | 93.0 a | 95.5 a | 102.5 b | 94.0 a | 91.7 a |
| | | | | | | |
| Undrained-unburned | 112.0 a | 110.5 a | 111.9 a | 116.2 a | lll.l a | 110.2 a |
| Undrained-burned | 105.0 b | 100.6 a | 104.1 a | 113.8 b | 104.0 a | 102.3 a |
| | | | | | | |
| Drained-unburned | 86.7 a | 85.8 a | 88.1 a | 91.2 a | 84.2 a | 84.1 a |
| Drained-burned | 85.7 a | 85.5 ab | 86.9 ab | 91.2 b | 84.0 ab | 81.1 a |
| | | • | | | | |
| Appendix 12. Start of | the assi | imilation | period 0 | (days | after May | 15) |
| Draining and burning | | Fertiliza | er treatm | ents | | |
| | Mean | C | NPL | N | P | L |
| or edements | rican | C | W. D | 14 | • | . — |
| Mean | 12.9 | _ | | 7 <u>-0</u> | | |
| Hear | 12.5 | === | | ETER | _ | |
| Undrained | 9.5 a | _ | <u> </u> | P100 | _ | 22 |
| Drained | 16.3 b | _ | _ | _ | _ | ×= |
| Drained | 10.3 D | | | - 00 | - | _ |
| Unburned | | | tion perio rtilizers | | | or 6 |
| 100 | 5.5 a | ıe: | rcilizers | were abl | bried | |
| Burned | 20.3 b | | | | | |
| *************************************** | 0.00 | | | | | |
| Undrained-unburned | 0.0 a | - | - | - | - | - |
| Undrained-burned | 19.0 b | - | - | - | _ | = |
| | 122 (<u>18</u> 1) - 241 | | | | | |
| Drained-unburned | 11.0 a | - | | - | - | - |
| D | 21 - 1 | | | | | |

Drained-burned 21.5 b -

Appendix 13. Start of the assimilation period 50% (days after May 15)

| Draining and burning | | Fertilizer | treatments | | |
|----------------------|--------|-------------|--------------|---------|---------|
| treatments | Mean | C NPI | L N | P | L |
| Mean | 47.5 | 46.1 a 51. | .1 b 47.1 a | 47.1 a | 46.1 a |
| Undrained | 42.6 a | 41.1 a 46. | .3 a 41.4 a | 43.1 a | 41.1 a |
| Drained | 52.4 b | 51.0 ab 55. | .9 b 52.8 a | 51.1 ab | 51.2 ab |
| Unburned | 43.7 a | 42.4 ab 46. | .5 b 44.8 ab | 43.6 ab | 41.4 a |
| Burned | 51.3 b | 49.7 ab 55. | .6 b 49.4 a | 50.7 ab | 50.9 ab |
| Undrained-unburned | 38.1 a | 36.9 a 39. | .8 a 39.0 a | 39.8 a | 35.1 a |
| Undrained-burned | 47.1 b | 45.4 ab 52. | .9 b 43.7 a | 46.4 ab | 47.0 ab |
| Drained-unburned | 49.4 a | 47.9 a 53. | .3 a 50.6 a | 47.3 a | 47.7 a |
| Drained-burned | 55.4 b | 54.1 a 58. | .4 a 55.1 a | 55.0 a | 54.7 a |

Appendix 14. Day after May 15 on which shoot height reached 71.1 cm

| Draining and burning treatments | Mean | Fertili C | zer trea NPL | tments N | P | L |
|--|------------------|-----------------------|------------------|------------------|--------------|------------------|
| Mean | 48.8 | 50.5 a | 47.4 a | 46.4 b | 49.9 a | 50.1 a |
| Undrained Drained | 41.8 a 55.9 b | 42.8 a 58.2 a | | 39.2 a 53.6 a | | 43.0 a 57.1 a |
| Unburned Burned | 43.4 a 54.3 b | 45. 0 a 56.0 a | | 41.6 a 51.3 a | | 43.4 a 56.7 a |
| Undrained-unburned Undrained-burned | 36.4 a 47.2 b | 36.7 a 48.9 a | 36.6 a 47.4 a | Anneal Sales | 40 MARC 1999 | 36.3 a 49.6 a |
| Drained-unburned Drained-burned | 50.4 a 61.3 b | 53.2 a 63.1 a | 49.5 a 56.0 a | | 50.7 a | 50.5 a 63.8 a |

Appendix 15. Duration of senescence 50% (day after the onset of senescence, i.e. Aug. 14, on which yellowing was halfway through)

| Draining and burning treatments | Mean | Fertili: C | zer trea NPL | tments N | P | L |
|--|------------------|--|------------------|------------------|--------------------|-------------------|
| Mean | 53.8 | 50.6 a | 57.8 b | 59.2 b | 52.0 a | 49.5 a |
| Undrained Drained | 60.1 a 47.6 b | 55.7 a 45.6 a | | 65.4 b 53.0 b | NOTES OF STREET | 56.3 a 42.8 a |
| Unburned Burned | 52.1 a 55.6 b | 70 F 15 17 17 17 17 17 17 17 17 17 17 17 17 17 | | 57.5 b 60.9 b | 50.2 abc 53.7 a | 47.5 a 51.5 a |
| Undrained-unburned Undrained-burned | 59.1 a 61.1 a | 10 7085 | 60.6 ab | 10 1001 TO 1010 | 60.0 ab 59.5 ab | 54.2 a 58.3 ab |
| Drained-unburned Drained-burned | 45.0 a 50.2 b | | 50.4 b 54.3 b | 50.8 b 55.3 b | 40.5 a 48.0 ab | 40.8 a 44.7 a |

Appendix 16. Duration of senescence 100% (day after the onset of senescence, i.e. Aug. 14, on which yellowing was complete)

| Draining and burning treatments | Mean | Fertiliz C | er treatm NPL | ents N | P | L |
|---------------------------------|------------------|--------------------|-------------------|------------------|-----------------|------------------|
| Mean | 71.6 | 69.0 a | 76.3 b | 76.9 b | 70.6 a | 65.4 a |
| Undrained | 79.0 a | 73.7 a | 83.7 b | 85.1 b | 79.7 ab | 72.8 a |
| Drained | 64.3 b | 64.4 ab | 68.9 b | 68.7 b | 61.4 a | 58.0 a |
| Unburned | 69.7 a | 68.1 a | 75.4 b | 75.1 b | 68.0 a | 62.2 a |
| Burned | 73.5 b | 70.0 ab | 77.2 bc | 78.4 c | 73.1 abo | 68.7 a |
| Undrained-unburned | 78.0 a | 74.8 ab | 82.7 b | 85.0 b | 77.5 ab | 70.2 a |
| Undrained-burned | 80.0 a | 72.5 a | 84.7 b | 85.1 b | 82.0 ab | 75.5 ab |
| Drained-unburned Drained-burned | 61.5 a 67.1 a | 61.3 ab 67.5 ab | 68.0 b 69.7 ab | 65.2 b 72.3 b | 58.6 ab 64.2 ab | 54.1 a 61.9 a |

Appendix 17. Green height in percent of total height on Oct. 3

| Draining and burning treatments | Mean | Fertiliz C | er treatm NPL | ents N | P | L |
|---------------------------------|---------------|------------------|-------------------|------------------|--------------------|------------------|
| Mean | 58.3 | 53.9 a | 69.7 b | 68.4 b | 54.1 a | 45.2 a |
| Undrained | 72.6 a | 65.4 a | 80.8 a | 76.8 a | 72.5 a | 67.4 a |
| Drained | 44.0 b | 42.4 ab | 58.7 b | 60.0 b | 35.8 a | 23.0 a |
| Unburned | 53.4 a | 50.0 ab | 63.9 b | 64.5 b | 48.5 ab | 39.9 a |
| Burned | 63.2 b | 57.7 ac | 75.6 b | 72.2 bc | 59.7 ac | 50.6 a |
| Undrained-unburned | 71.1 a | 67.8 a | 75.7 a | 74.7 a | 72.9 a | 64.6 a |
| Undrained-burned | 74.0 a | 63.0 a | 85.8 a | 78.9 a | 72.0 a | 70.3 a |
| Drained-unburned Drained-burned | 35.6 a 52.3 a | 32.3 abc 52.4 ab | 52.1 bc 65.3 b | 54.3 c 65.6 b | 24.2 ab 47.4 ab | 15.1 a 31.0 a |

Appendix 18. Susceptibility to drought (percent leaf die-back on June 19)

| Draining and burning treatments | Mean | Fertiliz C | zer treatm NPL | nents N | P | L |
|---------------------------------|--------|---------------|-------------------|------------|--------|--------|
| Mean | 4.6 a | 2.0 a | 6.8 b | 3.8 ab | 7.8 b | 2.8 ab |
| Undrained | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a |
| Drained | 9.2 b | 5.6 a | 13.6 b | 7.3 ab | 15.6 b | 5.6 ab |
| Unburned | 1.4 a | 0.5 a | 3.6 a | 0.9 a | 0.7 a | 1.4 a |
| Burned | 7.8 b | 3.4 a | 10.0 bc | 6.4 ab | 14.8 c | 4.2 ab |
| Undrained-unburned | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a |
| Undrained-burned | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a | 0.0 a |
| Drained-unburned | 2.9 a | 1.1 a | 7.3 a | 1.8 a | 1.5 a | 2.8 a |
| Drained-burned | 15.6 a | 6.9 a | 19.9 bc | 12.8 ab | 29.7 c | 8.4 ab |

Appendix 19. Insect damage (percent infested shoots)

| Draining and burning | 2 | Fertilizer | treatments | | |
|----------------------|---------|------------|-----------------|---------|---------|
| treatments | Mean | С | NPL N | P | L |
| Mean | 10.57 | 10.49 a | 10.93 a 11.12 a | 8.76 a | 11.55 a |
| Undrained | 20.34 a | 20.14 a | 19.86 a 21.65 a | 17.51 a | 22.53 a |
| Drained | 0.80 b | 0.83 a | 2.00 a 0.59 a | 0.00 a | 0.56 a |
| Unburned | 12.57 a | 12.70 a | 15.46 a 14.11 a | 6.70 a | 13.86 a |
| Burned | 8.57 b | 8.27 a | 6.40 a 8.13 a | 10.81 a | 9.23 a |
| Undrained-unburned | 24.10 a | 25.40 a | 26.92 a 27.04 a | 13.40 a | 27.72 a |
| Undrained-burned | 16.58 b | 14.88 a | 12.80 a 16.26 a | 21.62 a | 17.34 a |
| Drained-unburned | 1.04 a | 0.00 a | 4.00 a 1.18 a | 0.00 a | 0.00 a |
| Drained-burned | 0.56 a | 1.66 a | 0.00 a 0.00 a | 1.12 a | 0.00 a |

Appendix 20. Typha shoot standing crop on June 19 (g dry wt/m^2)

| Draining and burning | | Fertilizer | treatmen | ts | | |
|----------------------|--------|----------------|----------|--------|--------|--------|
| treatments | Mear: | С | NPL | N | P | L |
| Mean | 26.1 | 24.8 a | 24.1 a | 21.5 a | 34.2 a | 25.6 a |
| Undrained | 43.5 a | 44.0 a | 39.3 a | 34.3 a | 59.5 a | 40.6 a |
| Drained | 8.6 b | 5.7 a | 8.8 a | 8.8 a | 8.9 a | 10.7 a |
| Unburned | 37.2 a | 37.0 a | 35.6 a | 29.2 a | 49.4 a | 35.0 a |
| Burned | 14.9 b | 12.7 a | 12.6 a | 13.9 a | 19.0 a | 16.3 a |
| Undrained-unburned | 60.9 a | 65.5 a | 57.6 a | 44.8 a | 83.8 a | 53.1 a |
| Undrained-burned | 26.1 b | 1505 (505) 150 | 21.0 a | 23.8 a | 35.3 a | 28.1 a |
| Drained-unburned | 13.5 a | 8.5 a | 13.5 a | 13.6 a | 15.1 a | 16.9 a |
| Drained-burned | 3.7 b | | 4.2 a | 4.0 a | 2.7 a | 4.5 a |

Appendix 21. Typha shoot standing crop in Oct./Nov. (g dry wt/m²)

| Draining and burnin | g | Fertilize | r treatme | nts | | |
|---------------------|---------|-----------|-----------|---------|------------|----------|
| treatments | Mean | С | NPL | N | P | L |
| Mean | 527.4 | 345.7 a | 800.1 b | 642.0 b | 427.5 a | 421.8 a |
| Undrained | 644.6 a | 422.7 a | 945.1 b | 731.6 a | 580.2 al | 543.3 a |
| Drained | 410.2 b | 268.7 a | 655.1 b | 552.3 b | 274.8 a | 300.3 a |
| | | | | | | |
| Unburned | 548.3 a | 353.3 a | 839.2 b | 636.2 a | b 454.6 a | 458.5 a |
| Burned | 506.5 a | 338.1 a | 761.0 b | 647.8 b | 400.3 a | 385.2 a |
| | | | | | | |
| Undrained-unburned | 650.7 a | 443.9 a | 1005.4 b | 669.4 a | 602.4 al | 532.6 a |
| Undrained-burned | 638.4 a | 401.4 a | 884.9 b | 793.9 a | b 557.9 al | 554.0 ab |
| | | | | | | |
| Drained-unburned | 445.9 a | 262.6 a | 673.0 c | 603.1 b | c 306.8 al | 384.3 ab |
| Drained-burned | 374.5 a | 274.7 ab | 637.2 c | 501.6 b | c 242.8 a | 216.3 a |

Appendix 22. Standing crop of plants other than $\underline{\text{Typha}}$ in Oct./Nov. (g dry wt/m²)

| Draining and burning | g | Fertiliz | er treatme | nts | | | |
|--|---------|----------|------------|-----------|---------|---|--|
| treatments | Mean | С | NPL | N | P | L | |
| Mean | 30.0 | 24.2 a | 35.8 a | - | - | - | |
| Undrained | 50.0 a | 43.2 a | | | - | - | |
| Drained | 10.0 b | 5.2 a | 14.8 a | _ | _ | - | |
| Unburned | 49.4 a | 41.6 a | 57.2 a | No measu | romonto | | |
| Burned | 10.6 b | 6.8 a | 14.4 a | NO measur | Lements | | |
| Undrained-unburned | 93.2 a | | 113.6 a | - | - | = | |
| Undrained-burned | 6.8 b | 13.6 a | 0.0 b | - | - | - | |
| Drained-unburned | 5.6 a | 10.4 a | 0.8 a | - | - | - | |
| Drained-burned | 14.4 a | 0.0 a | 28.8 b | - | - | - | |
| Appendix 23. Litter load in Oct./Nov. (g dry wt/m ²) | | | | | | | |
| Draining and burning | g | Fertili | zer treatm | ents | | | |
| treatments | Mean | С | NPL | N | P | L | |
| Mean | 427.7 | 399.4 a | 456.0 a | H | _ | - | |
| Undrained | 415.4 a | 429.6 a | 404.8 a | - | - | _ | |
| Drained | 436.0 a | 369.1 a | 507.2 a | - | - | - | |
| Unburned | 684.9 a | 601.2 a | 768.6 a | | | | |
| Burned | 170.6 b | 197.6 a | 143.5 a | No measu | rements | | |
| Undrained-unburned | | 569.3 a | | - | - | - | |
| Undrained-burned | 230.8 b | 290.0 a | 171.6 b | = | - | - | |
| Drained-unburned | 766.1 a | 633.0 a | 899.2 a | = | - | _ | |
| Drained-burned | 110.3 b | 105.2 a | 115.4 a | - | - | - | |