

(00-NCS-1)

Postemergence applied Liberty, Liberty ATZ, Lightning, Aim, and others for weed control in LLIT corn, Nashua, Iowa, 2000. Owen, Micheal D.K., James F. Lux, Damian D. Franzenburg, and James M. Lee. The purpose of this study was to evaluate herbicide application timing for weed efficacy and crop phytotoxicity in GMO corn. The soil was a Floyd, Kenyon, Ostrander loam with a pH 6.85 and 3.5% organic matter. The experimental design was a randomized complete block with three replications and plots were 10 by 25 ft. The 1999 crop was soybean. Tillage included a spring field cultivation. Fertilization included 145 lb/A actual N applied as anhydrous ammonia. Crop residue on the soil surface was 25 to 30% at planting. "Garst hybrid 8539 BT/LL/IT" corn was planted 2 inches deep on May 2, at 32,454 seeds/A in 30 inch rows. May rainfall included: 0.01, 0.46, 0.26, 0.15, 0.21, 0.13, 0.53, 0.23, 0.01, 0.88, 0.30, 0.02, 0.17 and 0.64 inches on May 1, 8, 11, 12, 16, 17, 18, 21, 22, 26, 27, 28, 30 and 31, respectively. Total rainfall for May was 4.0 inches. June rainfall included: 0.12, 0.02, 0.43, 0.36, 0.03, 2.72, 0.03, 0.34, 0.05, 0.01, 0.45, 0.27, 0.17, 0.10, 0.01, and 0.50 inches on June 1, 3, 4, 10, 12, 13, 14, 15, 16, 19, 20, 23, 24, 25, 26, and 28, respectively. Total rainfall for June was 5.61 inches. July rainfall included: 2.56 inches and 0.54 inches from July 1 through 15 and 16 through 31, respectively. Rainfall total for August was 3.46 inches. Application information is listed below:

| Date | May 2 PRE | June 2 EPOST | June 11 MPOST | June 15 POST |
|--------------------------------|--------------|-----------------|------------------|-----------------|
| Treatment | | | | |
| Sprayer | | | | |
| gpa | 20 | 20 | 20 | 20 |
| psi | 35 | 30 | 30 | 30 |
| nozzle | 11002 | 11003 | 11003 | 11003 |
| Temperature (C) | | | | |
| air | 26 | 26 | 22 | 22 |
| soil (4 inch) | 21 | 19 | 21 | 20 |
| Soil moisture | dry | wet | moist | wet |
| Wind (mph) | 0-5 SE | 8-12 N | 0-2 W | 5-7 S |
| Sky | clear | clear | moist | wet |
| Relative | | | | |
| humidity (%) | 25 | 56 | 74 | 78 |
| Corn growth | | | | |
| leaf no. | - | V4 | V5 | V5-6 |
| height (inch) | - | 4-5 | 10-11 | 8-10 |
| Giant foxtail | | | | |
| leaf no. | - | 1-3 | 1-4 | 3-4 |
| height (inch) | - | 0.25-3 | 0.5-1.5 | 2-3 |
| infestation (ft ²) | - | 0-20 | 0-3 | 6-8 |
| Common lambsquarters | | | | |
| leaf no. | - | - | - | 5 |
| height (inch) | - | - | - | 1-2 |
| infestation (ft ²) | - | - | - | 4-5 |
| Common waterhemp | | | | |
| leaf no. | - | - | - | 2-3 |
| height (inch) | - | - | - | 1-1.5 |
| infestation (ft ²) | - | - | - | 1-2 |
| Velvetleaf | | | | |
| leaf no. | - | cotyl-2 | cotyl-4 | cotyl-4 |
| height (inch) | - | 0.25-2 | 0.25-3 | 1.5-3 |
| infestation (ft ²) | - | 0-5 | 0-1 | 0-1 |

Significant differences in corn stand between treatments were not attributable to herbicides. Leadoff applied PRE followed by Basis Gold MPOST and Accent Gold plus Clarity MPOST caused significant corn injury when evaluated June 15, four days after application. On June 15, prior to POST applications, all PRE applied herbicides effectively controlled giant foxtail, common waterhemp and common lambsquarters, except PRE Atrazine, Axiom and Leadoff provided only fair velvetleaf control. EPOST applications of Lightning with Clarity, Prowl, Banvel or Distinct and Aim plus Liberty provided excellent control of giant foxtail, velvetleaf, common waterhemp, and common lambsquarters when observed on June 15, 30, and July 19. Corn injury from 2 to 10% was observed on June 30 and July 19, and resulted mostly from POST applied herbicides. Nearly all MPOST and POST applied herbicides achieved excellent giant foxtail, velvetleaf, common waterhemp and common lambsquarters control when observed on June 30 and July 19. On July 19, Bicep II Magnum PRE did not control velvetleaf, Accent Gold plus Clarity did not control common waterhemp, and Aim plus Liberty did not control giant foxtail. Corn yields were significantly lower for Accent Gold plus Clarity applied MPOST and EPOST Aim plus Liberty. Generally, there was considerable yield variation between treatments. (Dept. of Agronomy, Iowa State University, Ames)

TRIAL # US 070/00/01 000 A1 : NCS 1

DATA MEAN

TITLE: Postemergence applied Liberty, Liberty ATZ, Lightning, Aim and others for weed control in LLIT corn.

CREATED: 04/03/2000 **REVISED:** 11/29/2000 **COMPLETED:** N
PROJECT TYPE: HERBICIDE **LOCATION:** NASHUA, IA **RESEARCHED BY:** IA State University
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN **PLOT SIZE:** 10.00 FT WIDE X 25.00 FT LONG **REPS:** 03

| TRT NUM COMPONENT | TREATMENT | DOSAGE RATE | UNIT | ZEAMD 17.5 FT 05/30/00 | ZEAMD PHY % 06/15/00 | SETFA CON % 06/15/00 | ABUTH CON % 06/15/00 | AMATA CON % 06/15/00 |
|--|-----------|---------------------------------------|---------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | | | TM | | | | |
| 1A UNTREATED CHECK | | 0.00 | NA | 0 | 31 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM 5.5 (L) | | 2.89 | LAA | 1 | 32 | 0 | 98 | 93 |
| 3A ATRAZINE 90DF (WG) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 1.00 0.313 0.50 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 31 | 0 | 89 | 85 |
| 4A»BALANCE PRO 4 (SC) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.055 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 31 | 2 | 93 | 98 |
| 5A»AXIOM 68 (DF) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.64 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 32 | 0 | 99 | 79 |
| 6A»LIBERTY ATZ 4.3 (SC) B»AMMONIUM SULFATE | | 1.34 3.00 | LAA LMA | 3 3 | 33 | 0 | 0 | 0 |
| 7A»ACCENT GOLD (83.8 DF) B CLARITY (4SL) C»CROP OIL CONCENTRATE D»28%N | | 0.152 0.125 1.00 2.00 | LAA LAA PMV QMA | 3 3 3 3 | 30 | 17 | 0 | 0 |
| 8A»LEADOFF 5 (SL) B»BASIS GOLD 89.5 (DF) C»CROP OIL CONCENTRATE D»28%N | | 0.94 0.783 1.00 2.00 | LAA LAA PMV QMA | 1 3 3 3 | 32 | 15 | 83 | 62 |
| 9A»BICEP II MAGNUM 5.5 (L) B»NORTHSTAR 47.4 (WG) C»CROP OIL CONCENTRATE D»28%N | | 2.89 0.148 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 31 | 0 | 99 | 96 |
| 10A»OUTLOOK 6 (EC) B»DISTINCT (70WG) C»NIS D»28%N | | 0.89 0.175 0.25 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 32 | 0 | 96 | 0 |
| 11A»FULTIME 4 (SC) B»ZA1296 4 (SC) C»CROP OIL CONCENTRATE D»28%N | | 3.00 0.094 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 30 | 0 | 98 | 95 |
| 12A»LIGHTNING 70 (DG) B CLARITY (4SL) C»NIS D»28%N | | 0.056 0.125 0.25 2.00 | LAA LAA PMV QMA | 2 2 2 2 | 32 | 0 | 99 | 99 |
| 13A»LIGHTNING 70 (DG) B PROWL 3.3EC C BANVEL (4SL) D»NIS E»AMMONIUM SULFATE | | 0.056 1.50 0.25 0.25 2.50 | LAA LAA LAA PMV LMA | 2 2 2 2 2 | 34 | 3 | 99 | 99 |
| 14A»LIGHTNING 70 (DG) B»DISTINCT (70WG) C»NIS D»AMMONIUM SULFATE | | 0.056 0.175 0.25 2.50 | LAA LAA PMV LMA | 2 2 2 2 | 32 | 0 | 99 | 99 |

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| TRT NUM | TREATMENT COMPONENT | DOSAGE | | ZEAMD 05/30/00 | ZEAMD 06/15/00 | SETFA CON % 06/15/00 | ABUTH CON % 06/15/00 | AMATA CON % 06/15/00 |
|---------------------|------------------------|--------|------|-------------------|-------------------|----------------------------|----------------------------|----------------------------|
| | | RATE | UNIT | 17.5 FT | | | | |
| 15A»AXIOM 68 (DF) | 0.51 | LAA | 1 | 29 | 0 | 98 | 82 | 99 |
| B»LIBERTY 1.67 (SL) | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | 3.00 | LMA | 4 | | | | | |
| 16A»AXIOM AT (75WG) | 1.31 | LAA | 1 | 31 | 0 | 98 | 93 | 99 |
| B»LIBERTY 1.67 (SL) | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | 3.00 | LMA | 4 | | | | | |
| 17A»EPIC 58 (DF) | 0.29 | LAA | 1 | 30 | 0 | 99 | 98 | 99 |
| B»LIBERTY 1.67 (SL) | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | 3.00 | LMA | 4 | | | | | |
| 18A»AIM (40DF) | 0.008 | LAA | 2 | 32 | 5 | 95 | 97 | 99 |
| B»LIBERTY 1.67 (SL) | 0.261 | LAA | 2 | | | | | |
| C»AMMONIUM SULFATE | 3.00 | LMA | 2 | | | | | |
| LSD (0.05) | | | | 3.46 | 3.46 | 4.85 | 11.35 | 0.00 |
| STANDARD DEVIATION | | | | 1.71 | 1.71 | 2.40 | 5.62 | 0.00 |

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PROJECT TYPE: HERBICIDE **RESEARCHED BY:** IA State University
LOCATION: NASHUA, IA **DESIGN:** RANDOMIZED COMPLETE BLOCK DESIGN
PLOT SIZE: 10.00 FT WIDE X 25.00 FT LONG **REPS:** 03

| TRT NUM COMPONENT | TREATMENT | DOSAGE RATE | UNIT | CHEAL CON % | ZEAMD PHY % | SETFA CON % | ABUTH CON % | AMATA CON % |
|--|-----------|---------------------------------------|---------------------------------|-----------------------|---------------------------|----------------------------|----------------------------|----------------------------|
| | | | | 06/15/00 | 06/30/00 | 06/30/00 | 06/30/00 | 06/30/00 |
| 1A UNTREATED CHECK | | 0.00 | NA | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM 5.5 (L) | | 2.89 | LAA | 1 | 99 | 2 | 98 | 83 |
| 3A ATRAZINE 90DF (WG) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 1.00 0.313 0.50 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 99 5 99 99 | 99 99 99 99 | 99 99 99 99 | 99 99 99 99 |
| 4A»BALANCE PRO 4 (SC) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.055 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 99 7 99 99 | 99 99 99 99 | 99 99 99 99 | 99 99 99 99 |
| 5A»AXIOM 68 (DF) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.64 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 96 7 99 99 | 99 95 99 99 | 95 95 99 99 | 99 99 99 99 |
| 6A»LIBERTY ATZ 4.3 (SC) B»AMMONIUM SULFATE | | 1.34 3.00 | LAA LMA | 3 3 | 0 2 | 99 99 | 99 99 | 99 99 |
| 7A»ACCENT GOLD (83.8 DF) B CLARITY (4SL) C»CROP OIL CONCENTRATE D»28%N | | 0.152 0.125 1.00 2.00 | LAA LAA PMV QMA | 3 3 3 3 | 0 10 99 99 | 99 98 99 98 | 98 98 99 87 | 87 87 99 99 |
| 8A»LEADOFF 5 (SL) B»BASIS GOLD 89.5 (DF) C»CROP OIL CONCENTRATE D»28%N | | 0.94 0.783 1.00 2.00 | LAA LAA PMV QMA | 1 3 3 3 | 95 5 99 99 | 99 99 99 99 | 99 99 99 99 | 99 99 99 99 |
| 9A»BICEP II MAGNUM 5.5 (L) B»NORTHSTAR 47.4 (WG) C»CROP OIL CONCENTRATE D»28%N | | 2.89 0.148 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 99 2 99 99 | 99 99 99 99 | 99 99 99 99 | 99 99 99 99 |
| 10A»OUTLOOK 6 (EC) B»DISTINCT (70WG) C»NIS D»28%N | | 0.89 0.175 0.25 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 94 7 98 93 | 98 98 93 99 | 98 98 93 99 | 99 99 99 99 |
| 11A»FULTIME 4 (SC) B»ZA1296 4 (SC) C»CROP OIL CONCENTRATE D»28%N | | 3.00 0.094 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 99 99 95 99 | 95 95 99 99 | 99 99 99 99 | 99 99 99 99 |
| 12A»LIGHTNING 70 (DG) B CLARITY (4SL) C»NIS D»28%N | | 0.056 0.125 0.25 2.00 | LAA LAA PMV QMA | 2 2 2 2 | 99 8 99 99 | 99 99 99 99 | 99 99 99 98 | 98 98 99 99 |
| 13A»LIGHTNING 70 (DG) B PROWL 3.3EC C BANVEL (4SL) D»NIS E»AMMONIUM SULFATE | | 0.056 1.50 0.25 0.25 2.50 | LAA LAA LAA PMV LMA | 2 2 2 2 2 | 99 7 99 99 99 | 99 99 99 99 99 | 99 99 99 99 99 | 99 99 99 99 99 |
| 14A»LIGHTNING 70 (DG) B»DISTINCT (70WG) C»NIS D»AMMONIUM SULFATE | | 0.056 0.175 0.25 2.50 | LAA LAA PMV LMA | 2 2 2 2 | 99 7 99 99 | 99 99 99 99 | 99 99 99 99 | 99 99 99 99 |

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|---------------------|------------------------|--------------------|------|----|----------------|----------------|----------------|----------------|----------------|
| | | RATE | UNIT | TM | 06/15/00 | 06/30/00 | 06/30/00 | 06/30/00 | 06/30/00 |
| 15A»AXIOM 68 (DF) | | 0.51 | LAA | 1 | 98 | 5 | 99 | 98 | 99 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 16A»AXIOM AT (75WG) | | 1.31 | LAA | 1 | 99 | 5 | 99 | 98 | 99 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 17A»EPIC 58 (DF) | | 0.29 | LAA | 1 | 99 | 2 | 99 | 99 | 99 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 18A»AIM (40DF) | | 0.008 | LAA | 2 | 99 | 5 | 80 | 93 | 95 |
| B»LIBERTY 1.67 (SL) | | 0.261 | LAA | 2 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 2 | | | | | |
| | | LSD (0.05) | | | 3.93 | 4.71 | 2.17 | 3.09 | 2.37 |
| | | STANDARD DEVIATION | | | 1.94 | 2.33 | 1.08 | 1.53 | 1.17 |

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PROJECT TYPE: HERBICIDE **LOCATION:** NASHUA, IA **RESEARCHED BY:** IA State University
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN **PLOT SIZE:** 10.00 FT WIDE X 25.00 FT LONG **REPS:** 03

| TRT NUM COMPONENT | TREATMENT | DOSAGE RATE | UNIT | CHEAL CON % | ZEAMD PHY % | SETFA CON % | ABUTH CON % | AMATA CON % |
|--|-----------|---------------------------------------|---------------------------------|-----------------------|---------------------------|----------------------------|----------------------------|----------------|
| | | | | 06/30/00 | 07/19/00 | 07/19/00 | 07/19/00 | 07/19/00 |
| 1A UNTREATED CHECK | | 0.00 | NA | 0 | 0 | 0 | 0 | 0 |
| 2A»BICEP II MAGNUM 5.5 (L) | | 2.89 | LAA | 1 | 99 | 2 | 95 | 52 |
| 3A ATRAZINE 90DF (WG) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 1.00 0.313 0.50 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 99 0 96 95 | 95 96 95 99 | 99 99 99 99 | |
| 4A»BALANCE PRO 4 (SC) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.055 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 99 0 96 98 | 98 96 98 99 | 99 99 99 99 | |
| 5A»AXIOM 68 (DF) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.64 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 4 4 4 | 99 0 98 95 | 95 98 95 99 | 99 99 99 99 | |
| 6A»LIBERTY ATZ 4.3 (SC) B»AMMONIUM SULFATE | | 1.34 3.00 | LAA LMA | 3 3 | 99 0 | 95 96 | 96 99 | 99 99 |
| 7A»ACCENT GOLD (83.8 DF) B CLARITY (4SL) C»CROP OIL CONCENTRATE D»28%N | | 0.152 0.125 1.00 2.00 | LAA LAA PMV QMA | 3 3 3 3 | 99 0 99 98 | 99 95 98 70 | 98 96 98 70 | |
| 8A»LEADOFF 5 (SL) B»BASIS GOLD 89.5 (DF) C»CROP OIL CONCENTRATE D»28%N | | 0.94 0.783 1.00 2.00 | LAA LAA PMV QMA | 1 3 3 3 | 99 2 99 99 | 99 96 96 98 | 96 98 98 99 | |
| 9A»BICEP II MAGNUM 5.5 (L) B»NORTHSTAR 47.4 (WG) C»CROP OIL CONCENTRATE D»28%N | | 2.89 0.148 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 99 2 99 99 | 99 99 99 99 | 99 99 99 99 | |
| 10A»OUTLOOK 6 (EC) B»DISTINCT (70WG) C»NIS D»28%N | | 0.89 0.175 0.25 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 99 2 95 93 | 95 95 93 99 | 93 93 99 99 | |
| 11A»FULTIME 4 (SC) B»ZA1296 4 (SC) C»CROP OIL CONCENTRATE D»28%N | | 3.00 0.094 1.00 2.00 | LAA LAA PMV QMA | 1 4 4 4 | 99 0 83 99 | 83 99 99 99 | 99 99 99 99 | |
| 12A»LIGHTNING 70 (DG) B CLARITY (4SL) C»NIS D»28%N | | 0.056 0.125 0.25 2.00 | LAA LAA PMV QMA | 2 2 2 2 | 99 7 98 99 | 98 99 99 88 | 99 99 99 88 | |
| 13A»LIGHTNING 70 (DG) B PROWL 3.3EC C BANVEL (4SL) D»NIS E»AMMONIUM SULFATE | | 0.056 1.50 0.25 0.25 2.50 | LAA LAA LAA PMV LMA | 2 2 2 2 2 | 99 7 99 99 99 | 99 99 99 99 92 | 99 99 99 99 92 | |
| 14A»LIGHTNING 70 (DG) B»DISTINCT (70WG) C»NIS D»AMMONIUM SULFATE | | 0.056 0.175 0.25 2.50 | LAA LAA PMV LMA | 2 2 2 2 | 99 5 99 99 | 99 99 99 96 | 99 99 99 96 | |

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| TRT NUM | TREATMENT COMPONENT | DOSAGE | | | CHEAL | ZEAMD | SETFA | ABUTH | AMATA |
|---------------------|------------------------|--------------------|------|----|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | RATE | UNIT | TM | CON % 06/30/00 | PHY % 07/19/00 | CON % 07/19/00 | CON % 07/19/00 | CON % 07/19/00 |
| 15A»AXIOM 68 (DF) | | 0.51 | LAA | 1 | 98 | 3 | 98 | 93 | 96 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 16A»AXIOM AT (75WG) | | 1.31 | LAA | 1 | 99 | 3 | 95 | 95 | 93 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 17A»EPIC 58 (DF) | | 0.29 | LAA | 1 | 99 | 2 | 93 | 96 | 94 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | | | | | |
| 18A»AIM (40DF) | | 0.008 | LAA | 2 | 95 | 2 | 55 | 80 | 88 |
| B»LIBERTY 1.67 (SL) | | 0.261 | LAA | 2 | | | | | |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 2 | | | | | |
| | | LSD (0.05) | | | 0.898 | 5.33 | 9.25 | 6.83 | 9.72 |
| | | STANDARD DEVIATION | | | 0.444 | 2.64 | 4.58 | 3.38 | 4.81 |

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CREATED: 04/03/2000 **REVISED:** 11/29/2000 **COMPLETED:** N
PROJECT TYPE: HERBICIDE **LOCATION:** NASHUA, IA **RESEARCHED BY:** IA State University
DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN **PLOT SIZE:** 10.00 FT WIDE X 25.00 FT LONG **REPS:** 03

| TRT NUM COMPONENT | TREATMENT | DOSAGE RATE | UNIT | CHEAL CON % | YIELD BU/A |
|--|-----------|---------------------------------------|---------------------------------|----------------|---------------|
| | | | | TM 07/19/00 | 10/11/00 |
| 1A UNTREATED CHECK | | 0.00 | NA | 0 | 0 101 |
| 2A»BICEP II MAGNUM 5.5 (L) | | 2.89 | LAA | 1 99 | 162 |
| 3A ATRAZINE 90DF (WG) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 1.00 0.313 0.50 3.00 | LAA LAA LAA LMA | 1 99 | 144 |
| 4A»BALANCE PRO 4 (SC) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.055 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 99 | 166 |
| 5A»AXIOM 68 (DF) B»LIBERTY 1.67 (SL) C ATRAZINE 90DF (WG) D»AMMONIUM SULFATE | | 0.64 0.313 0.75 3.00 | LAA LAA LAA LMA | 1 99 | 163 |
| 6A»LIBERTY ATZ 4.3 (SC) B»AMMONIUM SULFATE | | 1.34 3.00 | LAA LMA | 3 99 | 156 |
| 7A»ACCENT GOLD (83.8 DF) B CLARITY (4SL) C»CROP OIL CONCENTRATE D»28%N | | 0.152 0.125 1.00 2.00 | LAA LAA PMV QMA | 3 99 | 143 |
| 8A»LEADOFF 5 (SL) B»BASIS GOLD 89.5 (DF) C»CROP OIL CONCENTRATE D»28%N | | 0.94 0.783 1.00 2.00 | LAA LAA PMV QMA | 1 99 | 158 |
| 9A»BICEP II MAGNUM 5.5 (L) B»NORTHSTAR 47.4 (WG) C»CROP OIL CONCENTRATE D»28%N | | 2.89 0.148 1.00 2.00 | LAA LAA PMV QMA | 1 99 | 149 |
| 10A»OUTLOOK 6 (EC) B»DISTINCT (70WG) C»NIS D»28%N | | 0.89 0.175 0.25 2.00 | LAA LAA PMV QMA | 1 99 | 148 |
| 11A»FULTIME 4 (SC) B»ZA1296 4 (SC) C»CROP OIL CONCENTRATE D»28%N | | 3.00 0.094 1.00 2.00 | LAA LAA PMV QMA | 1 99 | 160 |
| 12A»LIGHTNING 70 (DG) B CLARITY (4SL) C»NIS D»28%N | | 0.056 0.125 0.25 2.00 | LAA LAA PMV QMA | 2 99 | 164 |
| 13A»LIGHTNING 70 (DG) B PROWL 3.3EC C BANVEL (4SL) D»NIS E»AMMONIUM SULFATE | | 0.056 1.50 0.25 0.25 2.50 | LAA LAA LAA PMV LMA | 2 99 | 148 |
| 14A»LIGHTNING 70 (DG) B»DISTINCT (70WG) C»NIS D»AMMONIUM SULFATE | | 0.056 0.175 0.25 2.50 | LAA LAA PMV LMA | 2 99 | 145 |

TRIAL # US 070/00/01 000 A1 : NCS 1

DATA MEAN

TITLE: Postemergence applied Liberty, Liberty ATZ, Lightning, Aim
and others for weed control in LLIT corn.

| TRT NUM COMPONENT | TREATMENT | DOSAGE RATE | UNIT | CHEAL CON % | YIELD BU/A |
|-------------------------|-----------|----------------|------|--------------------|---------------|
| | | | | TM 07/19/00 | 10/11/00 |
| 15A»AXIOM 68 (DF) | | 0.51 | LAA | 1 | 98 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | 161 |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | |
| 16A»AXIOM AT (75WG) | | 1.31 | LAA | 1 | 98 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | 171 |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | |
| 17A»EPIC 58 (DF) | | 0.29 | LAA | 1 | 98 |
| B»LIBERTY 1.67 (SL) | | 0.365 | LAA | 4 | 159 |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 4 | |
| 18A»AIM (40DF) | | 0.008 | LAA | 2 | 95 |
| B»LIBERTY 1.67 (SL) | | 0.261 | LAA | 2 | 133 |
| C»AMMONIUM SULFATE | | 3.00 | LMA | 2 | |
| STANDARD DEVIATION | | | | LSD (0.05) 1.56 | 26.52 |
| | | | | 0.77 | 13.12 |

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

- 00 = UNTRCHK / UNTREATED TIMING (FP)
- 01 = PREPRE / PRE 05/02/2000(1)
- 02 = EAPOWE / EPOST 06/02/2000(2)
- 03 = MID_POS / MPOST 06/11/2000(3)
- 04 = POSPOS / POST 06/15/2000(4)