Delayed preemergence herbicide applications in conventional corn

Mike Hunter Field Crop Specialist Cornell University Cooperative Extension North Country Regional Ag Team

Contact (315)788-8450 or meh27@cornell.edu

June 7, 2017

https://ncrat.cce.cornell.edu



Cornell University Cooperative Extension

Conventional corn weed control with delayed applications

Cool, wet conditions has delayed many intended preemergece herbicide applications in conventional corn. With drier and warmer warm weather in the short term forecast it appears that sprayers will be able to return to the field soon. It is very important to carefully consider your herbicide choices and make necessary adjustments if the corn and weed are up at the time of application. With adequate rainfall, preemergence herbicides can provide excellent weed control; however, once the weeds are emerged they will generally need some additional product added to the tank mix. The additional product could be another herbicide to include in the tank mix or just an adjuvant such as non-ionic surfactant (NIS) or crop oil concentrate (COC).

It is the sole responsibility of the user to read and follow all product labelling and to check with the manufacturer or supplier for the most recent information. Nothing contained in this information should be interpreted as an express or implied endorsement of any particular product, or as criticism of unnamed products. The information we provide is not a substitute for pesticide labeling.



Conventional corn weed control with delayed applications

• <u>Scenario 1</u>-

Conventional corn is at VE to V2 stage annual broadleaf weeds 1 inch tall

• <u>Scenario 2-</u>

Conventional corn is at VE to V2 stage annual broadleaf weeds 1 inch tall and emerged nutsedge

• Scenario 3-

Conventional corn is at VE to V2 stage annual broadleaf and grasses 1 inch tall



Scenario 1 -

Conventional corn is at VE to V2 stage annual broadleaf weeds 1 inch tall





Atrazine/acetamide premixes

- Bicep II Magnum
- Bicep Lite II Magnum
- Cinch ATZ
- Cinch ATZ Lite
- Harness Xtra
- Harness Xtra 5.6L
- Keystone NXT
- Keystone LA NXT
- Degree Xtra
- Fulltime NXT
- Breakfree NXT ATZ
- Breakfree NXT Lite
- Outlook + atrazine

Atrazine/acetamide premixes will usually be tank mixed with Prowl 3.3 or Prowl H2O

Products to include for small annual broadleaf control*:

2 to 4 oz. Banvel or Clarity

or

6 oz. Diflexx

or

.75 oz. Permit Plus (Permit + Harmony premix)

or

1.25 oz. Resolve Q (Resolve + Harmony premix)



atrazine/acetamide/HPPD inhibitor premixes*:

- Lumax EZ
- Lexar EZ
- Acuron

*Include an adjuvant such as NIS or COC. Crop oil concentrate will provide more consistent weed control than non-ionic surfactants but may also result in temporary crop injury.

✓ Instigate (a premix of Resolve + Callisto) can be mixed with an acetamide/atrazine premix (Cinch ATZ, Breakfree NXT ATZ...) This tank mix can be applied to corn up to 2 collars. Use only NIS with these tank mixes, <u>not</u> COC and No UAN either



Atrazine + dinitroanilines

Prowl H2O or Prowl 3.3 + atrazine

Products to include for small annual broadleaf control*:

2 to 4 oz. Banvel or Clarity

or

6 oz. Diflexx

or

.75 oz. Permit Plus

or

1.25 oz. Resolve Q



acetamide/HPPD inhibitor/growth regulator

- Resicore* (a premix of Surpass NXT, Callisto and Stinger)
- ✓ add atrazine for additional broadleaf control and grass control when used preemergence or early post emergence. A Resicore/atrazine tank mix will not provide consistent control of emerged annual grasses.

*Include an adjuvant such as NIS or COC. The use of crop oil concentrate may result in temporary crop injury.



Scenario 2 -

Conventional corn is at VE to V2 stage annual broadleaf weeds 1 inch tall and emerged nutsedge









Atrazine/acetamide premixes

- Bicep II Magnum
- Bicep Lite II Magnum
- Cinch ATZ
- Cinch ATZ Lite
- Harness Xtra
- Harness Xtra 5.6L
- Keystone NXT
- Keystone LA NXT
- Degree Xtra
- Fulltime NXT
- Breakfree NXT ATZ
- Breakfree NXT Lite
- Outlook + atrazine

Atrazine/acetamide premixes will usually be tank mixed with Prowl 3.3 or Prowl H2O

Products to include for small annual broadleaf and nutsedge control*:

4 oz. Yukon (Permit + Banvel premix)

or

.75 oz. Permit Plus



atrazine/acetamide/HPPD inhibitor premixes:

- Lumax EZ
- Lexar EZ
- Acuron

Products to include for small annual broadleaf and nutsedge control*:

4 oz. Yukon



An acetamide/atrazine premix (Cinch ATZ, Breakfree NXT ATZ....) tank mixed with Instigate. This tank mix can be applied to corn up to 2 collars. Use only NIS with these tank mixes, <u>**not**</u> COC and No UAN either

These tank mixes will control small emerged annual broadleaf, annual grasses and nutsedge



Atrazine + dinitroanilines

Prowl H2O or Prowl 3.3 + atrazine

Products to include for small annual broadleaf and nutsedge control*:

4 oz. Yukon

or

.75 oz. Permit Plus

*Consult the herbicide label and follow the adjuvant recommendations based on the products in the tank mix



Scenario 3 -

Conventional corn is at VE to V2 stage annual broadleaf and grasses 1 inch tall





Atrazine/acetamide premixes

- Bicep II Magnum
- Bicep Lite II Magnum
- Cinch ATZ
- Cinch ATZ Lite
- Harness Xtra
- Harness Xtra 5.6L
- Keystone NXT
- Keystone LA NXT
- Degree Xtra
- Fulltime NXT
- Breakfree NXT ATZ
- Breakfree NXT Lite
- Outlook + atrazine

Atrazine/acetamide premixes will usually be tank mixed with Prowl 3.3 or Prowl H2O Products to include for small annual broadleaf and grass control* +: 3.4 oz. Revulin Q (Callisto + Accent premix) or 4 oz. Realm Q (Callisto + Resolve premix) or 1.25 oz. Resolve Q or 3 oz. Capreno (Laudis +thiencarbazone-methyl premix) or 3 oz. Laudis or .75 oz. Armezon or Impact

*Consult the herbicide label and follow the adjuvant recommendations based on the products in the tank mix *Effectiveness of these herbicides varies with different annual grasses



atrazine/acetamide/HPPD inhibitor premixes:

- Lumax EZ
- Lexar EZ
- Acuron

Option 1- add additional atrazine and include an adjuvant such as NIS or COC. Crop oil concentrate will provide more consistent weed control but may also result in temporary crop injury. Will not provide consistent control of emerged annual grasses.

Option 2- Products to include for small annual broadleaf and annual grass control* + :

```
1.5 oz. Steadfast Q (Accent Q + Resolve premix)
```

or 1.25 oz. Resolve Q

or

```
.7 oz. Accent Q
```

*Consult the herbicide label and follow the adjuvant recommendations based on the products in the tank mix *Effectiveness of these herbicides varies with different annual grasses



Atrazine + dinitroanilines

```
Prowl H2O or Prowl 3.3 + atrazine

Products to include for small annual broadleaf and grass control* * :

3.4 oz. Revulin Q

or

4 oz. Realm Q

or

3 oz. Capreno

or

3 oz. Laudis

or

.75 oz. Armezon or Impact

or

20 oz. Armezon Pro (Armezon + Outlook premix)-will provide greater

residual season long annual grass control than just atrazine + Prowl
```

*Consult the herbicide label and follow the adjuvant recommendations based on the products in the tank mix

*Effectiveness of these herbicides varies with different annual grasses



acetamide/HPPD inhibitor/growth regulator

- Resicore (a premix of Surpass NXT, Callisto and Stinger)
 - Include atrazine for additional broadleaf control and grass control when used early post emergence.
 Include an adjuvant such as NIS or COC. The use of crop oil concentrate may result in temporary crop injury. A Resicore/atrazine tank mix will not provide consistent control of emerged annual grasses.

Products to include for small annual broadleaf and annual grass control* + :

1.5 oz. Steadfast Q or 1.25 oz. Resolve Q or .7 oz. Accent Q

*Consult the herbicide label and follow the adjuvant recommendations based on the products in the tank mix *Effectiveness of these herbicides varies with different annual grasses

