

# **DuPont Crop Protection**

## **2008 Product & Label Update**

**Steve Crawford**  
**Sales/Dev Support**  
**AR / LA / MS**

# Wheat Herbicides

## Harmony Extra – Formulation Change

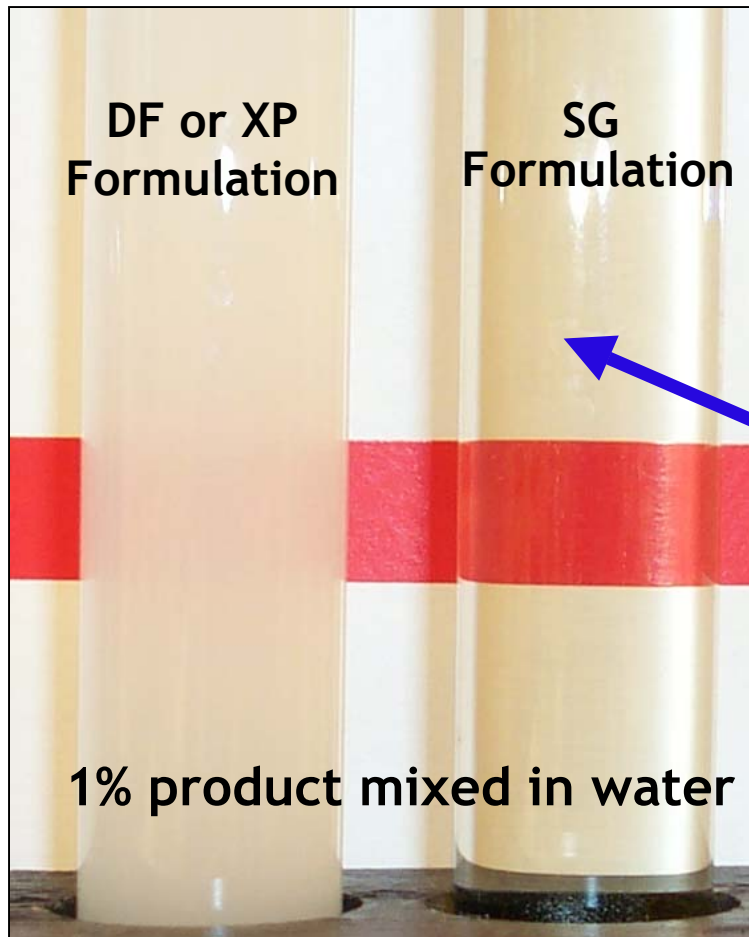
DuPont™ Harmony® Extra **XP** Herbicide



DuPont™ Harmony® Extra **SG** herbicide

(Soluble granules with TotalSol® technology)

# DuPont™ Harmony® Extra SG herbicide with TotalSol® soluble granules



- **SG versus XP**
- TotalSol® formulations completely dissolve in water
- TotalSol® formulations are clear in the spray tank

# Benefits of SG Formulations:

- Dissolves completely in water
- Allows delivery of all active ingredient from the spray tank to the target weeds
- Increased bioavailability of active ingredients
- More consistent weed control under a wider variety of environmental conditions
- Faster and easier tank cleanout allows for more efficient use of spray equipment

# Formulation / Rate Comparisons

## ■ **Harmony® Extra XP**

- A dry flowable granule
- 75% active ingredient
- Comparative Rates
  - 0.3 oz
  - 0.4 oz
  - **0.5 oz**
  - 0.6 oz

## ■ **Harmony® Extra SG**

- A water soluble granule
- 50% active ingredient
- Comparative Rates
  - 0.45 oz
  - 0.6 oz
  - **0.75 oz**
  - 0.9 oz

(XP times 1.5 = SG)

# FirstShot<sup>®</sup> SG

## Burndown Herbicide

- New non-residual burndown herbicide
- A “HOT” Harmony Extra
- More tribenuron (Express)
- New 50% SG TotalSol formulation
- Use rate of 0.5 to 0.8 oz/acre
- Tankmix with gly + 2,4-D or gly alone
- Reduced Preplant Intervals
  - Wheat & Rice – 0 days
  - Soybeans – 7 days
  - Cotton, Corn, G. Sorghum – 14 Days

# FirstShot® SG

## New Burndown Herbicide

- Add to glyphosate for improved control of henbit, smartweed, curly dock, carolina geranium, primrose, mayweed, swinecress, & many others.
- Add a phenoxy for maximum marestail & primrose control
- Benefits of a good burndown program:
  - Soils warm quicker
  - Better utilization of soil moisture
  - Start clean with easier planting
  - Less insect pressure

# DuPont Corn Herbicides 2008 Update

## ■ Standards:

- Steadfast®
- Resolve® DF

## ■ New for 2008:

- Resolve® Q
- Require® Q



# Resolve™ Q – new for corn

- Mixture of Resolve + Harmony + Safener
- Better choice for in-crop applications
  - Same residual grass control as Resolve DF
  - Improved postemergence control of bdlfs
    - PSW, LQ, VL, PW
  - Built-in crop safety
    - Safens the mixture of Resolve + Harmony
    - Less impact from varying environmental conditions
    - Safens across more hybrids
    - Widens application window by one collar
- Use rate: 1.25 oz/ac, tankmix with gly + atz

# Require™ Q – new for corn

- Mixture of Resolve + Dicamba + Safener
  - Same residual grass control as Resolve DF
  - Outstanding contact broadleaf control
  - Dicamba – another MOA
  - Built-in crop safety
    - Less impact from varying environmental conditions
    - Widens application window – 1 collar
    - Safens across more hybrids
  - Use rate: 4 oz/ac, tankmix with gly + atz
  - Corn must be at least 4” (V2) up to 20” (V6)

# DuPont Corn Herbicides 2008

## Early Preplant Burndown + Residual

All Corn Types - Conv & RR

**RESOLVE® DF 1 oz/ac**

Enhanced burndown + residual

Add to non-residual burndown (Gly + 2,4-D)

Start clean, reduce early season competition

Set up in-crop post applications

Economical



## At Planting Burndown + Residual

All Corn Types - Conv & RR

**RESOLVE® 1 oz/ac**

Suppression / Control of annual grasses & small seeded bdlf weeds

Add 1 lb Atrazine and/or non-residual burndown for increased control

Set up for Post appls

Economical



## POSTEMERGENCE - 4" to 8" corn

"ROW & GO" for Grass & Bdlf Weed Control

Conventional Corn

**STEADFAST .75 oz/ac**

+ Atrazine 2 lbai/ac + 1% COC

RR Corn

**RESOLVE® 1.0 oz or RESOLVE® Q 1.25 oz/ac**

+ RUOM 22 oz + Atrazine 2 lbai/ac

# Resolve™ DF Herbicide in Preplant Applications

**49** days after EPP application - **28** days after planting  
L. D. Brantley Farms, England, AR; Spring 2006



Glyphosate + 2,4-D + Resolve™ DF 1 oz/ac



Glyphosate + 2,4-D

Resolve™ DF:

- improved burndown control
- residual prevents reinfestation
- reduces early season competition
- allows greater flexibility for in-crop applications

# Resolve Early Preplant @ 1 oz/A

## Residual Henbit Control



**Resolve 1 oz/A**

**Untreated**

L. D. Brantley Farms  
England, AR  
Spring, 2007

Applied Preplant to freshly tilled beds, corn planted 21 days after application

# DuPont Soybean Herbicides

## 2008 Update

- **Envive™--for Preplant Thru At Plant App.**
  - New product for 2008
  - 2 MOA / 3 actives
    - Chlorimuron + Thifensulfuron + Flumioxazin
    - Rate Range: 2.5 to 5 oz/A
    - KEY rate: 3.5 oz/A (Syn XP 1.5 oz + Valor 2 oz)
- **Canopy® EX—for Preplant Applications**
  - KEY rate: 2 oz/A
  - KEY Trt.: Gly + 2,4-D + Canopy EX 2.0 oz/A
  - Key Benefits: Burndown Plus Strong Residual

# Envive™ vs Canopy® EX

Attribute:	Envive™	Canopy® EX
<b>Control / Suppression of many bdlf and grass weeds ... broad spectrum</b>	X	X
<b>Excellent control gly-r marestail</b>	X	X
<b>Controls ALS-R pigweed</b>	X	
<b>Enhances burndown, adds residual</b>	X	X
<b>Reduces early season competition</b>	X	X
<b>Sets up / reduces # of in-crop appls</b>	X	X
<b>Economical</b>	X	X

# Canopy® EX

## Enhanced burndown + residual



Canopy® EX 2 oz/ac + Gly + 2,4-D EPP / (Gly + Classic) 32 DAP

EPP applied 4/4/07 Soybeans planted 5/9/07 (36 DAT)

In-crop glyphosate application 6/10/07

Photos taken 7/10/07



# **Rynaxypyr™ Insecticide**

- **A new lep insecticide for use in fruits, nuts, and vegetables as well as some row crops including cotton.**
- **Registration expected in early 2008**
- **New class of chemistry with a new mode of action.**
- **Trade Names:**
  - **Coragen™ SC - leafy & fruiting vegetables, brassica, cucurbits, cotton, potatoes**
  - **Altacor™ 35WDG - pome & stone fruits, grapes**

# **Rynaxypyr™ Insecticide**

## **Biological Attributes:**

- **Highly potent at low use rates**
- **Excellent crop protection with rapid feeding inhibition (minutes)**
- **Systemic properties – seed treatments, drip irrigation, soil drenches, foliar**
- **Long-lasting residual – 14 plus days**
- **Excellent knockdown activity**
- **In cotton, control & plant protection equal to BG II**

# **Rynaxypyr™ Insecticide**

- **Rice Seed Treatment**
  - **Currently under development**
  - **Section 18's to control RRW requested for 2008**
  - **Trade name will be Dermacor™ X-100**
  - **Rice water weevil control equivalent to Icon**
  - **Appears to have good activity on grape colaspis (lespedeza worm) and rice stem borer**
  - **Should see 2007 data at winter meetings**

# Rice Water Weevil

Mike Stout Trial - Crowley, La.

72 Days After Planting



Untreated Check

DuPont™ Dermacor™  
X-100 Seed Treatment

# Rice Water Weevil

M.O. Way trial, Beaumont, TX

June 22, 2007

XL723



**Untreated Check**

**DuPont™ Dermacor™  
X-100 Seed Treatment**

*Note height difference and tiller size*

# **Punch Fungicide**

## **Control of ASR in soybeans**

- **Triazole chemistry – flusilazole**
- **Received Sec 18 on Feb 7, 2007**
- **Valid through 6/15/2010**
- **Excellent control of ASR – both curative & preventative activity**
- **Use rate of 3 – 4 oz/acre (one shot, late for ASR)**
- **Tank mix with strobos @ 3 oz/ac**
- **Economical**

**THANK YOU !!**

**Questions**

# DuPont Wheat Herbicides

## NO Ryegrass

### Bluegrass / Winter Annual Bdlfs

**Finesse®**

**0.5 oz Preemergence**

Drilled Wheat

Good suppression of annual bluegrass

Excellent control of winter annual bdlfs

Long residual

Recrop to STS or STS / RR Soybeans

### Garlic / Winter Annual Bdlfs

**Harmony® Extra XP**

**0.4 oz Fall / 0.5 oz Spring**

Drilled or Broadcast Seeded

Excellent control of garlic & winter annual bdlfs

Add 1 pt 2,4-D in spring if marestail is present

No residual

Rotational Flexibility

## Ryegrass Present

### Light to Moderate Infestation

**Finesse®**

**0.5 oz Preemergence**

Drilled Wheat

Good suppression of annual ryegrass & bluegrass

Excellent control of winter annual bdlfs

Long residual

Recrop to STS or STS / RR Soybeans

### Moderate to Heavy Infestation

**Finesse® Grass & Broadleaf**

**0.9 oz Early Post**

Drilled or Broadcast Seeded

Good control of annual ryegrass

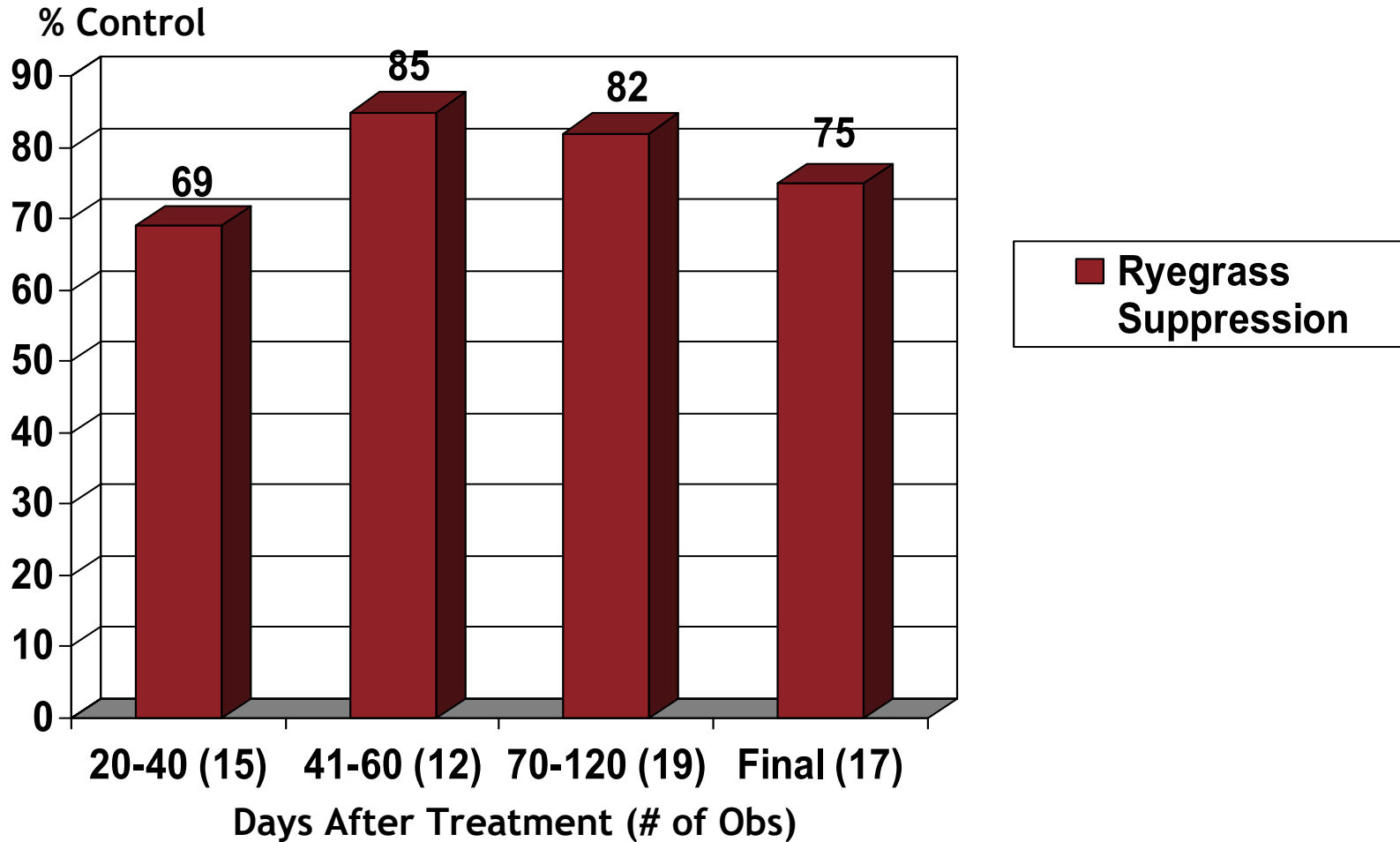
Excellent control of winter annual bdlfs

Carefully consider recrop options



# Finesse<sup>®</sup> - Ryegrass Suppression

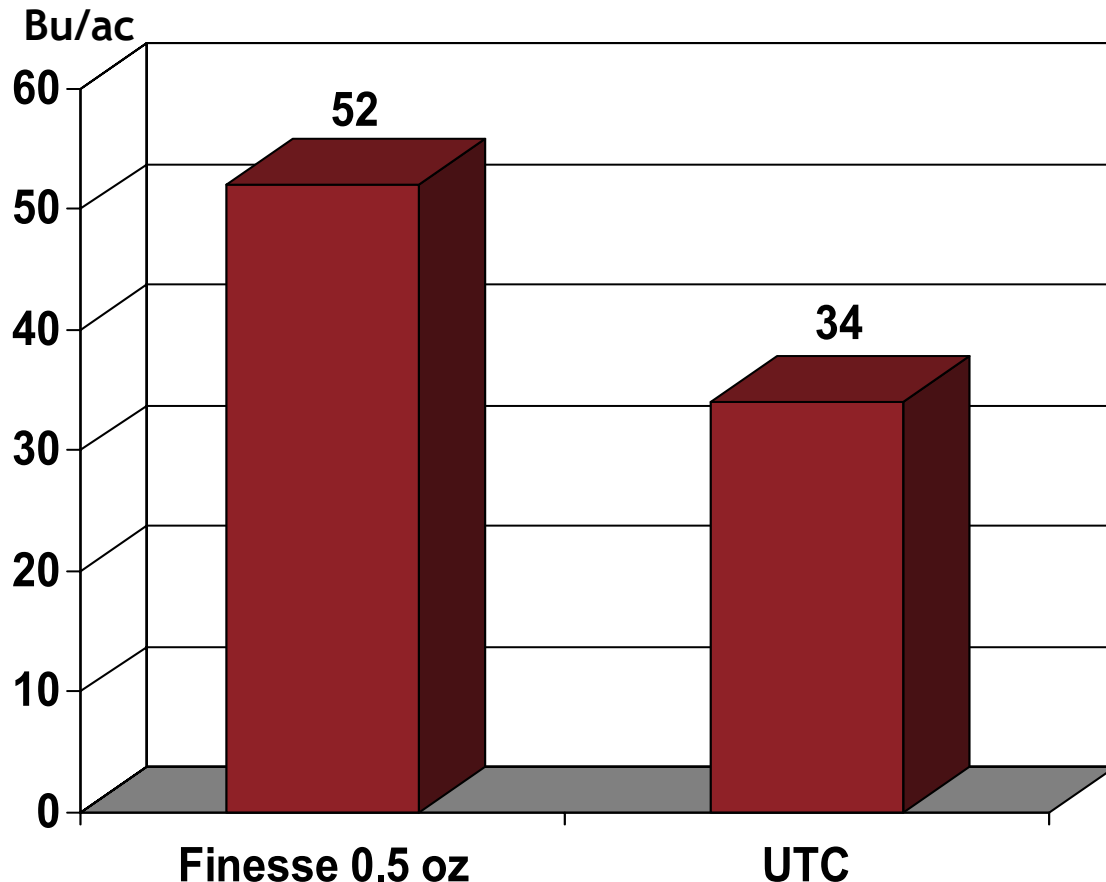
Preemergence 0.5 oz product/ac on Winter Wheat



1999-2007 Mid South Data Summary  
20 University & 2 DuPont Trials

# Finesse<sup>®</sup> - Ryegrass Suppression

Preemergence 0.5 oz product/ac on Winter Wheat



■ Wheat Yield (bu/ac)

Average Yield increase of 18 bu/ac !!

Total of 16 Direct Comparisons

1999-2007 Mid South Data Summary

15 University & 1 DuPont Trial

# Finesse<sup>®</sup> - Ryegrass Suppression



**Finesse<sup>®</sup> 0.5 oz/ac  
Preemergence**

**Untreated**

# Finesse<sup>®</sup> Grass & Broadleaf New Wheat Herbicide

- 25% Chlorsulfuron
- 46.7 % Flucarbazone-sodium
- 2 active ingredients result in very broad spectrum control of both grass & broadleaf weeds
- Excellent crop safety
- Refer to the Finesse<sup>®</sup> Grass & Broadleaf herbicide label for complete directions for use and precautions
- Always read and follow the label

# Finesse<sup>®</sup> Grass & Broadleaf Ryegrass Control



SWH-06-004 Finesse<sup>®</sup> G&B 0.9 oz/ac  
Applied 12/2/05 Slide taken 5/9/06

# Finesse<sup>®</sup> Grass & Broadleaf

## Application Timing

- Apply postemergence after winter wheat has 2 leaves up to jointing
- Postemergence control of grass weeds
  - Treat ryegrass from 1-leaf and prior to tillering
- Postemergence and soil residual control of broadleaf weeds
- Add a NIS at 0.5% v/v with water carrier
- Liquid nitrogen fertilizer solutions may be used as a carrier\*
- Tank mix flexibility with other herbicides, insecticides, & fungicides\*

\* Consult product label(s) for additional use instructions

# Resolve Early Preplant @ 1 oz/A

## Residual Henbit Control (close up)



**Resolve 1 oz/A**



**Untreated**

**Applied Preplant to freshly tilled beds, corn planted 21 days after application**

**DuPont™  
Soybean Herbicides**

**Early Preplant Burndown Plus Residual  
All soybean types - Conv / RR / STS**

**Marestail, ALS-R Pigweed,  
Grass & Bdlf Weeds**

**Envive® at 3 to 4 oz/ac (3.5 oz/ac)**

3 actives / 2 MOA - thifen, chlorimuron, flumi  
Nov 1 through at-plant appls  
Enhanced burndown + residual  
Add to non-residual burndown (Gly + 2,4-D)  
Start clean, reduce early season competition  
Set up in-crop post appls

**Marestail,  
Grass & Bdlf Weeds**

**Canopy EX® at 1.5 - 2 oz/ac**

Nov 1 through 7 days preplant  
Enhanced burndown + residual  
Add to non-residual burndown (Gly + 2,4-D)  
Start clean, reduce early season competition  
Set up in-crop post appls  
Economical

**At Planting Burndown Plus Residual  
All soybean types - Conv / RR / STS**

**ALS-R Pigweed, Grass & Bdlf Weeds**

**Canopy® DF at 4 to 6 oz/ac**

**Envive® at 3 oz/ac**

Control / Suppression of annual grass & bdlf weeds  
Burndown & residual  
Reduces early season competition  
Set up in-crop post appls

**Grass & Bdlf Weeds**

**Synchrony® XP at 1.5 to 2 oz/ac**

Control / Suppression of annual grass & bdlf weeds  
Burndown & residual  
Reduces early season competition  
Set up in-crop post appls  
Economical



# DuPont™ Soybean Herbicides

## POSTEMERGENCE In-Crop

### STS/RR Soybeans

**Synchrony® XP .75 - 1.125 oz/ac**

+ Glyphosate

Broad spectrum grass & bdlf control

Excellent post activity on mg, hs, yns

Adds in-crop residual

No grass antagonism when added to Gly

Economical

### RR Soybeans

**Classic® .25 - .33 oz/ac**

+ Glyphosate

Broad spectrum grass & bdlf control

Increases post activity on mg, hs, yns

No grass antagonism when added to Gly

Economical

**Look to DuPont™ for your soybean herbicide needs !!**

### DuPont Crop Protection Soybean Herbicide Positioning Summary

Product	Nov 1 to 7 Days Preplant	At Planting	Early Post
Canopy® EX	Yes	No	No
Envive®	Yes	Yes	No
Canopy® DF	No	Yes	No
Synchrony® XP	No	Yes	Yes (STS soybeans only)
Classic®	No	No	Yes

# Marestail Competition



Competitive effects from marestail  
not controlled prior to planting !!

# **Optimum™ GAT™**

## **Herbicide Resistance Technology**

- New, genetically engineered herbicide resistance technology for glyphosate and ALS herbicides (all).
- Glyphosate and ALS tolerant traits are combined, both present in the host plant - will be referred to as Optimum™ GAT™
- Federal Registration expected in 2009 for soybeans & 2010 for corn.
- New herbicide concepts currently under development.
- Technology delivered to the market by Pioneer, Syngenta Seeds, and Green Leaf Genetics.

**More Choices. More Yield. More Value.**