

**EXHIBIT
PLTF-1143**

From: jeffrey.birk@basf.com [jeffrey.birk@basf.com]
Sent: 10/29/2012 10:59:59 AM
To: scott.jackson@basf.com
Subject: Engenia Volatility Update Oct.pptx
Attachments: _

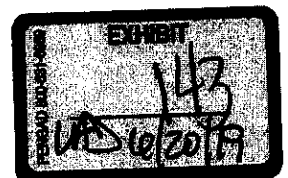
Scott,

For your entertainment. Throwing good money after bad science.

Jeffrey H. Birk, Ph.D.

Phone: 919-547-2622, Mobile: 919-225-9220, E-Mail: jeffrey.birk@basf.com
Postal Address: 26 Davis Drive, RTP, NC 27709

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Pltfs-1143.0001

MDL BASF00513362



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The Chemical Company

Engenia Volatility Update

October, 2012

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- BAS 193 WF H (160 g/l Agnique FOH-90C-3)
 - ❖ On Track for Release in November
 - Need to determine 2013 needs and plan for scale-up
- Second Generation
 - ❖ 126 g/l Agnique FOH-90C + 32 g/l Trymeen 6607 feasible
 - Further improvement in reduction of fines
 - Acceptable storage stability through freeze Thaw and 1 month 50 C
 - Development planned for 2013

■ **K Glyphosate: 560 g ae Dicamba + 1120 g ae Roundup Power Max**

Use Rate K_2CO_3 (g/ha) (addition X 2772)	None	150	200	250	300
% wt Loss Dicamba 24 hrs HTVS	20.8	10.1	4.3	2.8	3.1

■ **IPA Glyphosate: 560 g ae Dicamba + 1120 g ae Roundup Ultra**

Use Rate K_2CO_3 (g/ha) (addition X 2772)	314	452	546	600	700	800	912	995	1180
% wt Loss Dicamba 24 hrs HTVS	77.8	58.2	36.4	28.0	13.6	3.7	0.6	0.3	3.0

- **800 g/ha K Carbonate Required**
- **Built in formulation not feasible**

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560 g ae/ha Dicamba + 1120 g ae/ha Glyphosate							
467 g/ha AMS							
K Glyphosate			IPA Glyphosate				
Use Rate K ₂ CO ₃ (g/ha) (addition X 2772)	None	200	300	None	600	700	800
% wt Loss 24 hrs HTVS	46.0	46.5	41.9	84.1	81.5	76.6	76.1

K Carbonate not effective

	Use Rate (fl oz/A)	% wt Loss Dicamba 24 hrs HTVS
Engenia	12.8 (227 g ae/a)	
Water	10 gal/A	
Tank Mix Partner		
Liberty SL (Glufosinate-ammonium)	29	52.5
Sharpen SC	1	1.9
Verdict EC	5	9.8
Outlook EC	12	7.4
BAS 656 AE H	18.8	6.7
Headline EC	9	10.9
Headline SC	9	11.9
Fastac EC	4	4.7
Select Max EC	16	NA
Reflex SL	24	3.6
	oz/A	
Zidua 80% WG	1.5	4.7
Valor 51% WG	3.0	7.6

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- Vacuum Volatility Study:
 - Confirmation study of K Carbonate + Glyphosate Tank Mixtures in progress

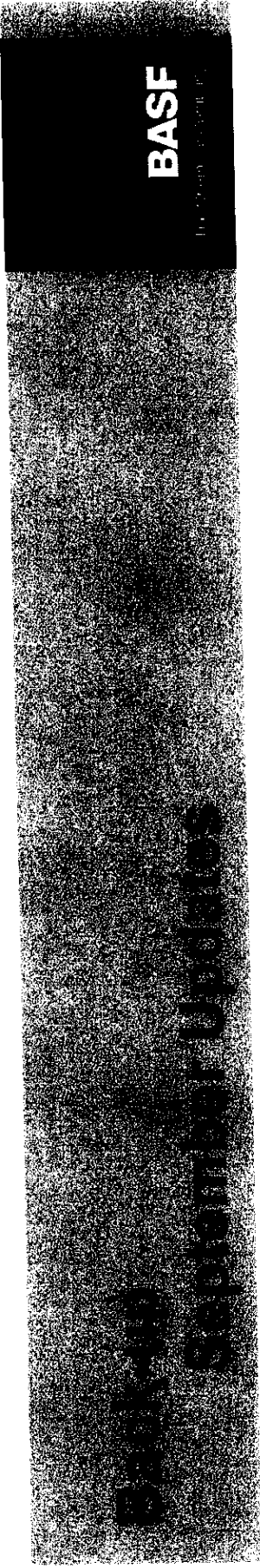
- HTVS studies of K Carbonate with suspect priority herbicide partners planned

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	3.50	1.00	8.50	9.1
650 g	51.60	6.00	78.20	93.8
1120 g ae	20.8	10.1		
1120 g ae	59.2	84.8		
1120 g ae	47.3	78.4		
1120 + 467	46.0	29.8 (20.5%)*		
1120 + 467	82.6	84.1		
1120 + 467	78.2	69.3 (82.5%)**		

* excluding 57.9% from run # 3 of 4 runs

** excluding 29.2% from run #2 of 4 runs

- BAPMA Dicamba – high volatility in Generic Glyphosate (IPA & DMA)
- Addition of K2PO3 ineffective at 150 g/l loading in Generic Glyphosate
 - Positive effect with K Glyphosate and AMS

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Target: Maintain Volatility Reduction of Dicamba DLVF with Generic Glyphosate (IPA and DMA salts)

Dicamba + Roundup Ultra (560 + 1120 g ae/l)		
Dicamba Salt	Loading	% wt Loss 24 hrs MTVS
Potassium Dicambate (215 g ae/l)	215 g ae/l	75.8
Ethanolamine Dicambate		76.1
Choline Dicambate		81.7
Sodium Dicambate		74.1

➤ All of the Dicamba Salts showed high volatility comparable to BAPMA

BAPMA Dicamba + Roundup Ultra 560 + 1120 g ae/l		
Dicamba 480 g/l SL + Buffer System	Formulation pH	% wt Loss 24 hrs MTVS
BAPMA 110 g/l	Phosphoric Acid 48 g/l	65.4
	Citric Acid 48 g/l	58.4
	Boric Acid 48 g/l	70.3
None	Water	68.5
	Quadrol 160 g/l	61.2
Water	7.2	59.9

➤ No improvement in volatility reduction even with excess BAPMA to 110 g/l Loading

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Engenia + Roundup Ultra (560 + 1120 g ae/l)		
Tank Mix	Tank Mix pH	% wt Loss 24 hrs MTVS
BAPMA	7.0	44.6
K2C03	7.0	16.7
Tracie Borate	7.0	87.8
Climb*	7.0	16.9
Cornbelt	7.0	80.4
None	4.3	71.8
* Potassium Carbonate Basic Adjuvant from Wilber Ellis		
BAPMA	8.0	In Progress
	8.5	
	9.0	
K2C03	8.0	
	8.5	
	9.0	

Titration Study (K ₂ CO ₃)						
Engenia (600 g/l)	0.336 ml (0.202 g ae)					
Roundup Ultra (450 g/l)	0.900 ml (0.405 g ae)					
Water	to 50 ml					
Use Rate Dicamba	560 g ae/ha					
Dilution Use Factor	1 to 2772					
K ₂ CO ₃ addition	0.1132	0.163	0.197	0.329	0.359	0.426
Solution pH	6.0	6.5	7.0	8.0	8.5	9.0
Use Rate K ₂ CO ₃ (g/ha) (addition X 2772)	314	452	546	912	995	1180
% wt Loss 24 hrs HTVS	77.8	58.2	36.4 (CK 16.7)	0.6	0.3	3.0
Titration Study (K ₂ CO ₃)						
BAPMA Addition				0.163	0.185	0.215
Solution pH				8.0	8.5	9.0
Use Rate K ₂ CO ₃ (g/ha) (addition X 2772)				452	514	595
% wt Loss 24 hrs HTVS				15.1	8.8	3.5

➤ Not Feasible as built-in buffer in 480 g/l Dicamba SL