



Dicamba Tolerance System Agreement

Joint Working Group Updates

October 1, 2014



EXHIBIT
PLTF--284

BADER FARMS ET AL V. MONSANTO ET AL.

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Working Group Meetings

Participants met in Raleigh, September 22-23, 2014

	BASF	Monsanto
CWG	Dan Steltz, Ron Repage, Bryan Perry, Nathan Bergmeyer	Jay Butka, Melinda McCann
RWG	Jeff Birk, Rodrigo Fiorati, Danny O'Byrne	Susan Martino-Catt, Tina Bhakta
DWG	Steve Bowe, Walter Thomas, John Frihauf, Chad Brommer	Joe Sandbrink, Jeff Travers



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Commercial Working Group



Stakeholder Outreach

- Regulatory Advocacy
 - Independent efforts to coordinate input during comment period
 - Joint awareness necessary on all active topics
- BASF/Monsanto bi-weekly dialogue continues
 - Industry Affairs, Government Affairs, Communications teams



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CWG Follow-up Topics

- Recommendation by CWG to refocus participation in bi-weekly joint regulatory advocacy calls
 - Identify opportunities for aligned messaging to the market
- Recommendation by CWG for adoption/ maintenance of state/ federal regulatory advocacy events calendar
 - Joint awareness needed
 - Coordination when appropriate
- Considerations for development of common messaging
 - Recommendation by CWG to revive/ update some efforts from the past
 - Joint FAQs
 - System benefits
 - Application requirements
 - Technical bulletins
- CWG work plan updated by next AMT

Regulatory Working Group



U.S. Regulatory Status

- USDA published dEIS for DT crops early August
 - Comment period scheduled to end September 25th
 - 15 day extension of comment period until October 10th
- USDA maintains position - end 2014 for deregulation of DT crops
- EPA registration for OTT use of M1691 - expected by end 2014
 - MON is in active negotiation with EPA regarding:
 - Weed Resistance management
 - Stewardship
 - Threatened and Endangered species (limited state approval)
- Remaining global trait import and chemistry MRL approvals necessary to keep launch on track



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Brazil Submission Strategy

Important Change for Line Swapping in Brazil

- Recent indication by ANVISA that they will no longer allow companies to use line swapping strategy
 - Agency released statement related to “equivalent” submissions
 - Informal follow up confirmed agency would not accept for any submissions (label extensions, etc.)

- BASF and MON aligned for MON to make new registration submission of a Dicamax clone (conventional + OTT) – Q4 2014
 - MON agrees to submit a clone for BASF at the same time
- Currently reassessing strategy for the label extension for OTT use of Dicamax and Atectra Soy
 - Teleconference planned for week of October 6th to make final decision



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South America Update

Argentina

- Trait, DGA, BAPMA OTT chemistry approval expected by mid 2016
- Commercialization possible for 2016/2017 season

Paraguay

- Trait approved, DGA OTT chemistry approval expected by mid 2016
- Commercialization possible for 2016/2017 season

Uruguay

- Trait approved, DGA OTT chemistry approval expected by mid 2016
- Commercialization possible for 2016/2017 season



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U.S. Sensitive Crop Tolerances

- Tolerances for first crop groups are likely to be in place Q1 2016
- BASF to make first submission in November 2014
 - berries, grape, brassica veg., cucurbit veg., root & tuber veg., tree nut
- MON to make second submission in December 2014
 - fruiting veg., leafy veg., legume veg. peanut



Enlist Update

- Trait deregulated by USDA September 2014
- Joint RWG estimated timelines:
 - EPA to finalize Enlist Duo label Q4 2014
 - China trait import process approval - estimated mid 2016
 - Projected trait import approvals for remaining countries – estimated early 2015



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RWG Follow-up Topics

- Finalization of sensitive crop program agreement
 - Reimbursement by MON for sensitive crop study costs
- RWG work plan updated by next AMT



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Development Working Group



2014 Field Program Update

Efficacy

- Good performance across geographies and cropping systems
- Dicamba increases consistency of tankmix partners
- Key focus areas – weed size, use of residuals, early season weed control

Crop Tolerance

- Soybean – slightly higher level of necrosis in 2014 (ca avg - 3; max - 15)
- Cotton – similar / slightly lower than 2013; higher than soy (ca avg - 10; max - 20)
 - Proactively position necrosis potential with growers



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2014 Field Program Update

Application Training / Validation

Communication objectives:

- Formulation Selection
- Nozzle Selection
- Wind Speed / Direction
- Boom Height
- Ground Speed
- Equipment Cleaning
- Awareness of Sensitive Plants
- Additive Restrictions (ie, AMS)
- Impact of Weed Size
- Weed Resistance Management
 - System Approach: use of appropriate rate, inclusion of residuals, multiple SOAs
- New Application Technologies Opportunities
 - Pulse Width Modulation, AirAssist, Hooded, PatternMaster, new nozzle technology



Label Development

- BASF + MON Aligned
 - Adjuvants
 - No AMS; acceptable water conditioning alternatives TBD
 - Adjuvants – NIS, HSOC (MSO, COC allowable w/ dicamba alone)
 - Recommend use of deposition agent (DRA)
 - Action: Test worst-case commercial tank mixtures
 - Nozzles – XC to UC spray quality
 - Crop Response
 - Necrosis observed
- Additional Discussion Required
 - POST - BASF – 0.375 to 0.5 lb/ac depending weed spectrum; MON
 - 0.5 lb/ac
 - Necrosis potential in soy and cotton



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2015 Joint Testing Objectives

- 2015 seed (cotton and soy) for BASF R&D trials
- Commercial mixtures (including adjuvants) on crop tolerance
- Evaluate new application technologies (ie, AirAssist, PWM, etc)
- Continue application and herbicide stewardship training



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DWG Follow-up Topics

- 2015 seed (cotton and soy) for BASF R&D trials
- Decision on public release of sensitive crop rankings to dicamba
- DWG discussion continues on:
 - Resistance mitigation, endangered/sensitive crop setbacks, On-target deposition experience (large and small scale)
- Add Latin America / ROW DWG status by next AMT
- DWG work plan updated by next AMT



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RWG BACK UP SLIDES



Monsanto

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Regulatory Status – North America

Country	Submission	Submitter	Submit/Approve
USA	DT Soy/Cotton Deregulation (USDA)	MON	Jul 2010 – 4Q 2014
	DGA in DT Crops (Soy/Cotton) (EPA)	MON	Apr 2010 – 4Q 2014
	BAPMA Conventional and DT Soy/Cotton (EPA)	BASF/MON	May 2012 – 4Q 2014
	MON DGA Premix in DT Soy/Cotton (EPA)	MON	4Q 2014 – 2Q 2015



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Regulatory Status – North America

Country	Submission	Submitter	Submit/Approve
Canada*	DT Soy Trait Approval	MON	Nov 2010 – Oct 2012
	DGA in DT Soy	MON	Apr 2010 – Dec 2013
	BAPMA in DT Soy	BASF/MON	Mar 2014 – April 2016

* Canadian launch delayed until US launch



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Regulatory Status – Brazil:

Country	Submission	Submitter	Submit/Approve
Brazil (Label extension strategy to be aligned by October 2014)	DT Soy Trait Approval	MON	3Q 2014 – 3Q 2016
	New registration (Dicamax Clone + OTT use) and Clone for BASF	MON	4Q 2014 – TBD
	DGA Conventional Crops	BASF	Dec 2011 – 2Q 2015
	DGA in DT Soy (dependent on trait approval)	BASF	3Q 2015 – 3Q 2018
	BAPMA in DT Soy (dependent on trait approval)	BASF	3Q 2015 – 3Q 2019
	DGA in DT Cotton (dependent on trait approval)	BASF or MON	2Q 2015 – 1Q 2019



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Regulatory Status – South America

Country	Submission	Submitter	Submit/Approve
Argentina	DT Soy Trait Approval	MON	4Q 2013 – 2Q 2016
	DGA Conventional Crops	BASF	2QCY13 – 4QCY14
	DGA in DT Soy*	BASF	1Q 2015 – 1Q 2016
	BAPMA in DT Soy**	BASF	1Q 2015 – 1Q 2016
Paraguay	DGA EUP for MON	BASF	Done (EUP approved)
	DGA in DT Soy* (submission timeline considering efficacy trials delivered by MON on time)	BASF	2Q 2015 – 2Q 2016
	BAPMA in DT Soy	BASF	TBD***
Uruguay	DGA EUP DT Soy for MON	BASF	Done (EUP approved)
	DGA in DT Soy*	BASF or MON	2Q 2015 – 4Q 2015
	BAPMA in DT Soy	BASF	TBD***

* MON registration is an extension of BASF registration. Requires BASF to submit MON OTT data

** Registration assumes no need for in-country trials due to same dose rate/GAP to DGA

*** No regulatory work has been done to date



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Dicamba Import Tolerance/MRL Actions

Japan

- Soybean
- A process of inquiry in MHLW has been completed & MAFF is now in the final legal check & approval process for amendment of the Ministerial ordinance on Dicamba before going to gazette publication process in the Printing Bureau. Expectation: December 2014

Korea

- Soybean, corn
- BASF/MON coordinated submissions after KFDA consultation
- October 2012 – 2Q 2014 (1x rate residues data submitted)
- Approval timeline: 2Q 2015

Taiwan

- Soybean, corn
- TFDA published the MRLs in Dec. 31 2013.

CODEX

- Soybean
- 2013 JMPR session recommended a Dicamba MRL of 10 ppm.
- August 2014: Dicamba MRL of 10 ppm final approval, valid to support trade.

EU

- DT Soybean
- EFSA proposed a separate MRL for DCSA in DT soy while leaving intact current MRL for Dicamba in conventional soybean.
- Standing Committee on the Food Chain and Animal Health to discuss approach with different residue definitions for GMs/conventional crops
- MRL expected approval: 1Q 2015



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