



# Comparison of methods of applying Ridomil at or near planting time for control of black shank

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# Incentives

1. The new, revised Section 3 label for Ridomil Gold that was less rigid in the timing of the applications.
  - a. Pre-plant app. no longer required.
  - b. But still start early.
2. Interest in transplant water applications.

# Objective

Can broadcast PPI be replaced with an over-the-top band (OTB) immediately after planting or with a transplant water (TPW) application?

Ridomil label: Apply as near to planting as possible, followed by additional applications, which are directed under the plants and covered with soil by the cultivator.





## Over-the-top band







## Transplant water simulation



PPI



Efficacy trials only: All treatments other than the control received a lay-by application of 1 pt/A.



# Dark Tobacco Crop Safety Trial

## Highland Rim REC, 2010

Product	Rate/A	Method of application	Grade index	Yield (lb/A)
Untreated control	--	--	59.8 a	3661 a
Ridomil Gold	0.5 pt	TPW	43.6 b	3721 a
ProPhyt	3 pt	TPW	35.3 b	3727 a
Ridomil Gold + ProPhyt	0.5 pt 3 pt	TPW TPW	39.3 b	3495 a
Ridomil Gold + ProPhyt + Ridomil Gold	0.5 pt 3 pt 0.5 pt	TPW TPW OTB	37.9 b	3498 a



# Burley Crop Safety Trial

## REC at Greeneville, 2010

Product	Rate/A	Method of application	Yield (lb/A)	Grade index
TN 90				
Untreated control	--	--	3285	40.9
Ridomil Gold	1 pt	PPI	3229	37.4
Ridomil Gold	0.50 pt	OTB	3373	34.3
Ridomil Gold	0.50 pt	TPW	3389	33.1
			<i>P</i> > F: 0.20	<i>P</i> > F: 0.36
KT 209				
Untreated control	--	--	3279	33.7
Ridomil Gold	0.50 pt	PPI	3273	33.5
Ridomil Gold	0.25 pt	OTB	3266	35.9
Ridomil Gold	0.25 pt	TPW	3301	38.2
			<i>P</i> > F: 0.64	<i>P</i> > F: 0.99

# Burley Crop Safety Trial

## HRREC, 2008

Product	Rate/A	Method of application	Grade index	Yield (lb/A)
Untreated control	--	--	34.3	2507
Ridomil Gold	0.25 pt	TPW	40.3	2492
Ridomil Gold	0.38 pt	TPW	34.9	2412
Ridomil Gold	0.50 pt	TPW	38.3	2299
ProPhyt	4 pt	TPW	37.6	2801
Ridomil Gold + ProPhyt	0.25 pt 4 pt	TPW TPW	40.7	2472



# Efficacy Trial

Cheatham County, 2010; KT D6 LC

No.	Treatment		
	PPI	Transplant water	Over-the-top band
1	--	--	--
2	Rid 1 pt	--	--
3	--	--	Rid 0.5 pt
4	--	--	Rid 1 pt
5	--	Rid 0.5 pt	--
6	--	Rid 0.25 pt	Rid 0.5 pt
7	--	ProPhyt 3 pt	Rid 0.5 pt
8	--	Rid 0.25 pt ProPhyt 3 pt	Rid 0.5 pt

# Efficacy Trial

## Cheatham County, 2010

No.	Treatment			Plants infected (%)	
	PPI	Transplant water	Over-the-top band	Aug 3	Aug 16
1	--	--	--	78.9 a	96.3 a
2	Rid 1 pt	--	--	57.9 b	91.1 a
3	--	--	Rid 0.5 pt	70.0 ab	92.1 a
4	--	--	Rid 1 pt	15.8 cd	44.7 bc
5	--	Rid 0.5 pt	--	26.3 c	55.3 b
6	--	Rid 0.25 pt	Rid 0.5 pt	1.6 d	20.0 c
7	--	ProPhyt 3 pt	Rid 0.5 pt	12.1 cd	38.4 bc
8	--	Rid 0.25 pt ProPhyt 3 pt	Rid 0.5 pt	10.5 cd	39.5 bc



## Cheatham County Trial, 2010

## Value of the TPW treatment

Treatment				Plants infected (%)	
No.	PPI	Transplant water	Over-the-top band	Aug 3	Aug 16
3	--	--	Rid 0.5 pt	70.0 ab	92.1 a
6	--	Rid 0.25 pt	Rid 0.5 pt	1.6 d	20.0 c
7	--	ProPhyt 3 pt	Rid 0.5 pt	12.1 cd	38.4 bc

## Value of the OTB treatment

5	--	Rid 0.5 pt	--	26.3 c	55.3 b
6	--	Rid 0.25 pt	Rid 0.5 pt	1.6 d	20.0 c

17 Aug





17 Aug







25 Aug



25 Aug







# When to apply the follow-up to the TPW?



Planting

1<sup>st</sup> cultivation

Lay-by



# Efficacy Trial

## Cheatham County, 2011

Treatment				
No.	PPI	Transplant water	Over-the-top band	1 <sup>st</sup> Cult.
1	--	--	--	--
2	Rid 1 pt	--	--	--
3	--	Rid 0.25 pt	Rid 0.50 pt	--
4	--	Rid 0.50 pt	--	1 pt
5	--	Rid 0.25 pt	Rid 0.75 pt	--

# Efficacy Trial

## Cheatham County, 2011

Treatment					Plants infected (%)
No.	PPI	Transplant water	Over-the-top band	1 <sup>st</sup> Cult.	Aug 31
1	--	--	--	--	24.8 a
2	Rid 1 pt	--	--	--	5.3 a
3	--	Rid 0.25 pt	Rid 0.50 pt	--	3.1 a
4	--	Rid 0.50 pt	--	1 pt	0.8 a
5	--	Rid 0.25 pt	Rid 0.75 pt	--	0.0 a



# Other trials

- Macon County, burley, 2008
- Robertson County, dark, 2010

How long does Ridomil last on the soil surface?



All pots planted on same day.  
Ridomil applied at:



4 days





8 days



10 days





# 14 days



# Conclusions

- TPW gets plants off to good start.
- OTB is a good supplement to TPW, but not adequate alone unless watered in.
- Optimum timing of application following TPW not determined, OTB vs 1C.
- TPW and OTB are sufficiently safe.



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