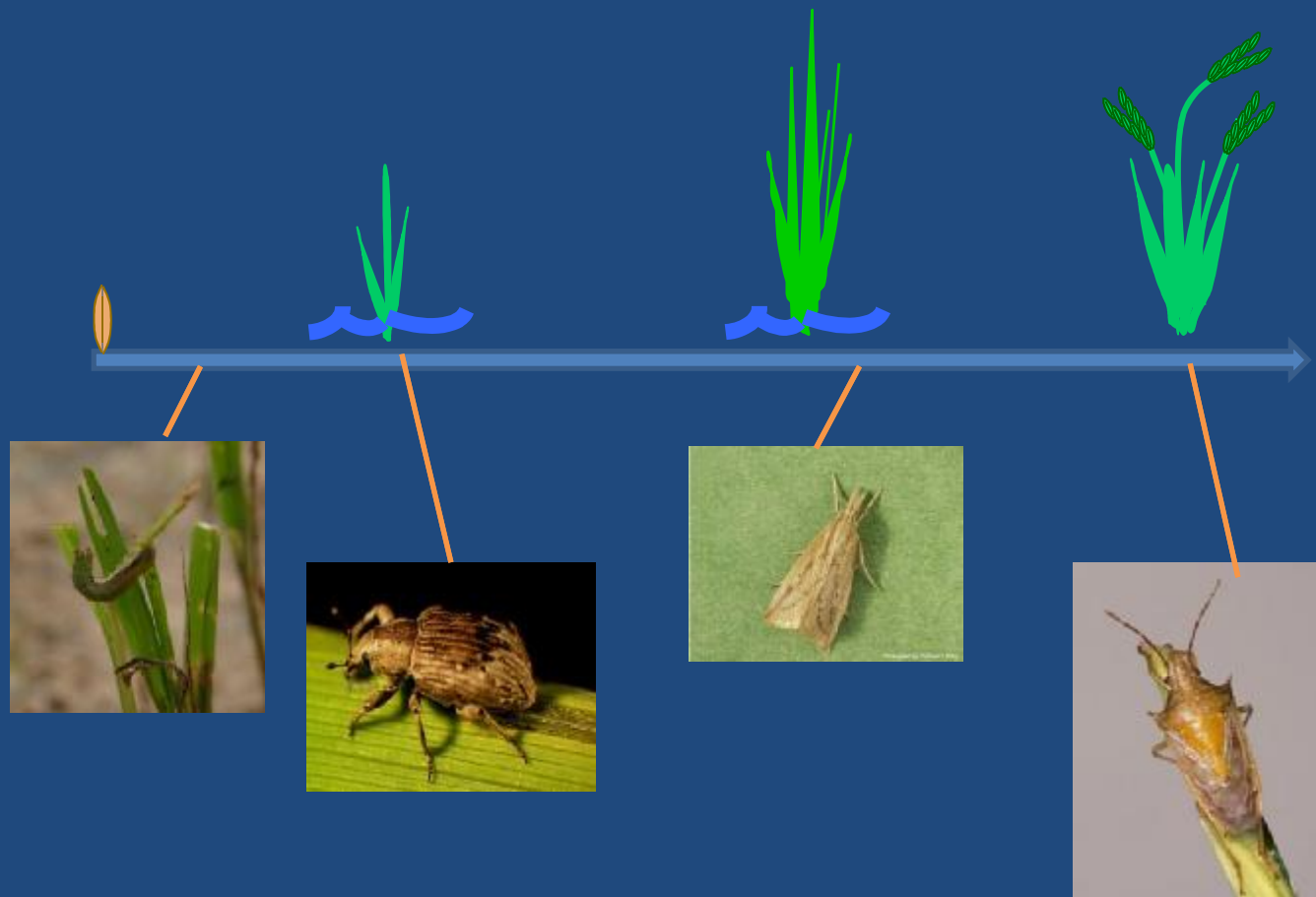


# New labels and insecticide use strategies for rice water weevil control

Michael Stout, LAES & LCES (interim)  
Srinivas Lanka, LAES





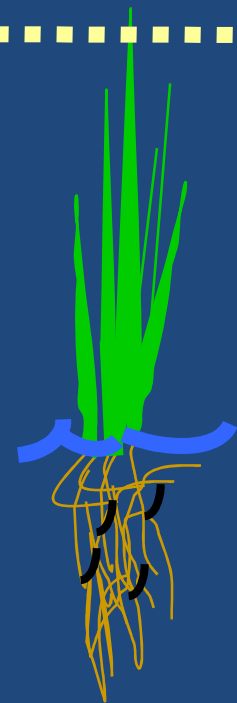
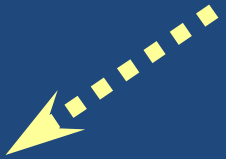
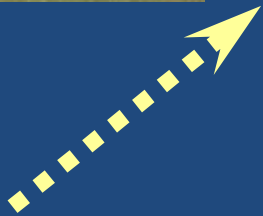
Rice water weevil : **key** insect pest of Louisiana rice

- Ø Most economically damaging insect
- Ø Decisions must be made before planting



Adult  
overwintering

Adult  
feeding



Larval  
feeding

Mating and  
oviposition

# Rice water weevil insecticides

## Furadan



# Rice water weevil insecticides

Furadan



Pyrethroids + Icon



# Rice water weevil insecticides

Furadan



Pyrethroids + Icon



Pyrethroids



# Rice water weevil insecticides

Furadan



Pyrethroids + Icon



Pyrethroids



Pyrethroids + seed treatments



# Rice water weevil insecticides

Furadan



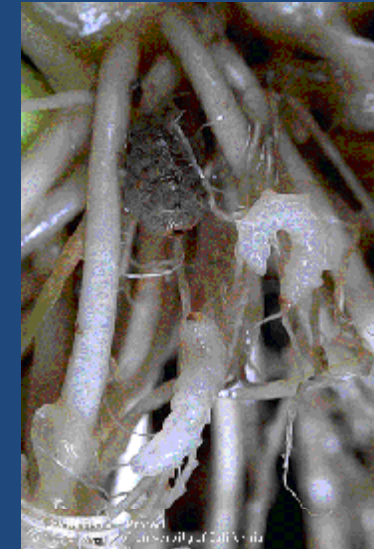
Pyrethroids + Icon



Pyrethroids



Pyrethroids + seed treatments



Foliar insecticides		Seed treatments	
Pyrethroids (Fastac)	<b>Belay</b>	Dermacor	CruiserMaxx <b>NipsitInside</b>



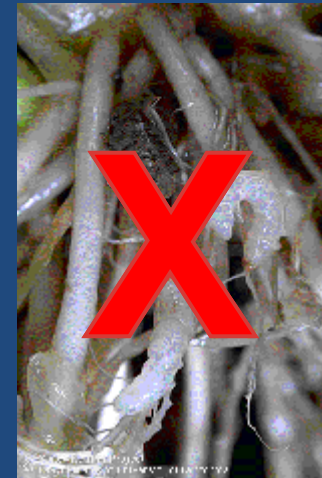
Foliar insecticides		Seed treatments	
Pyrethroids	<b>Belay</b>	Dermacor	CruiserMaxx <b>NipsitInside</b>

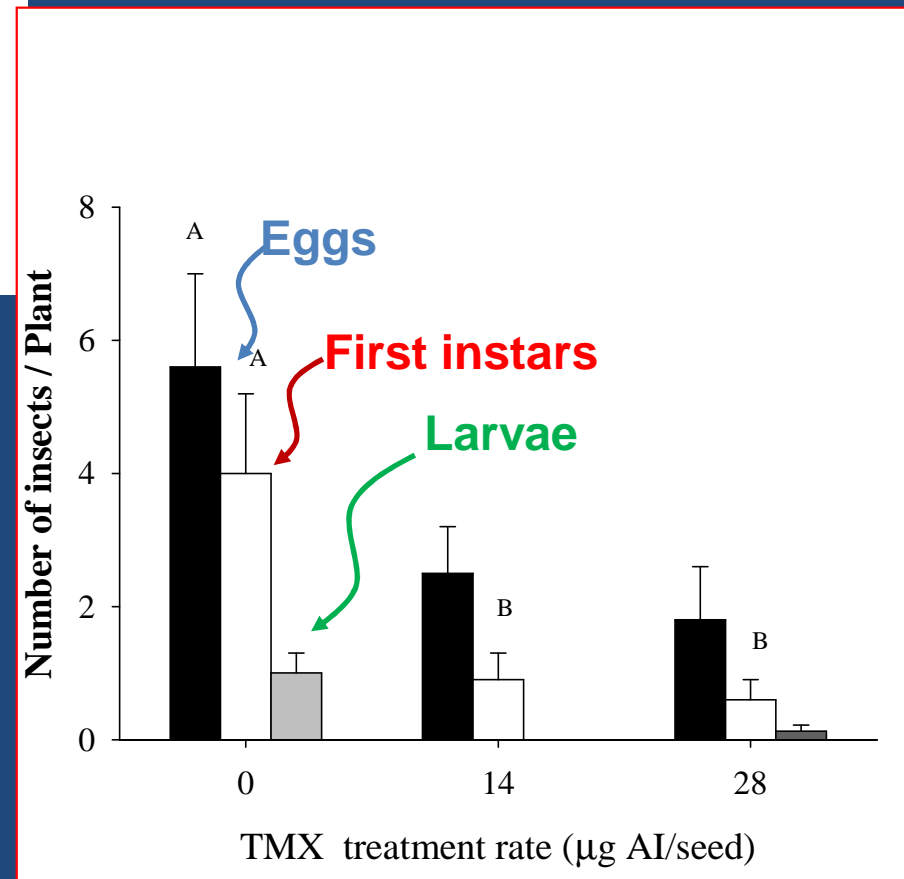
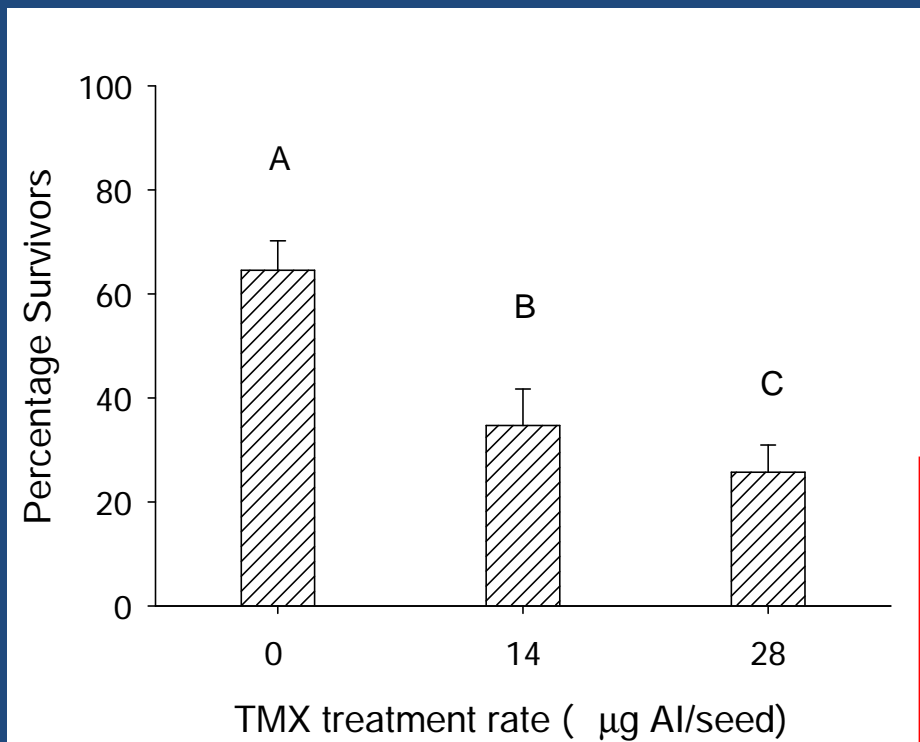
- Strategies: seed treatments vs. foliars
- NipsitINSIDE label and use
- Belay and Fastac labels
- Use of Belay
- Dermacor in water-seeded rice (24c)
- Neonicotinoid + Dermacor combinations (2ee allows lower Dermacor rates)
- Crawfish impacts
- Other management practices

# Foliars – Pyrethroids, Belay



# Seed treatments – CruiserMaxx, Dermacor X-100, NipsitINSIDE





# NipsitInside (seed treatment) label

- Active ingredient: Clothianidin (similar to CruiserMaxx)
- Rate: 1.92 fl oz/100 lbs seed (0.075 lb ai/100 lbs seed)
- For use in dry-seeded rice; seed treatments to be made by authorized seed treater
- Do not apply > 0.2 lbs ai/acre/year
- "Not to be used in areas where rice/crawfish aquaculture practices are in place..."
- Aphids, chinch bugs, colaspis, thrips, rice water weevil

# Spectrum of activity

## Cruiser/Nipsit



## Dermacor X-100



# Spectra of activity: what pests do they control?

Dermacor X-100		Cruiser/Nipsit	
X	Rice water weevil	X	Rice water weevil
	Colaspis	X	Colaspis
X	Stem borers		Stem borers
	Sucking pests –chinch bugs, aphids	X	Sucking pests –chinch bugs, aphids
X	Other Leps – fall armwyorm		Other Leps – fall armwyorm
X	South American Rice Miner	X	South American Rice Miner

# Fastac (foliar) label

- Active ingredient: alpha-cypermethrin (pyrethroid)
- Rate: 2.6 to 3.8 fl oz/acre (0.02-0.025 lb ai/acre)
- Use like other pyrethroids
- Do not apply > 11.4 fl oz/acre/year
- "Do not use treated rice fields for the aquaculture ..."
- Rice water weevil, aphids, armyworms, stink bugs



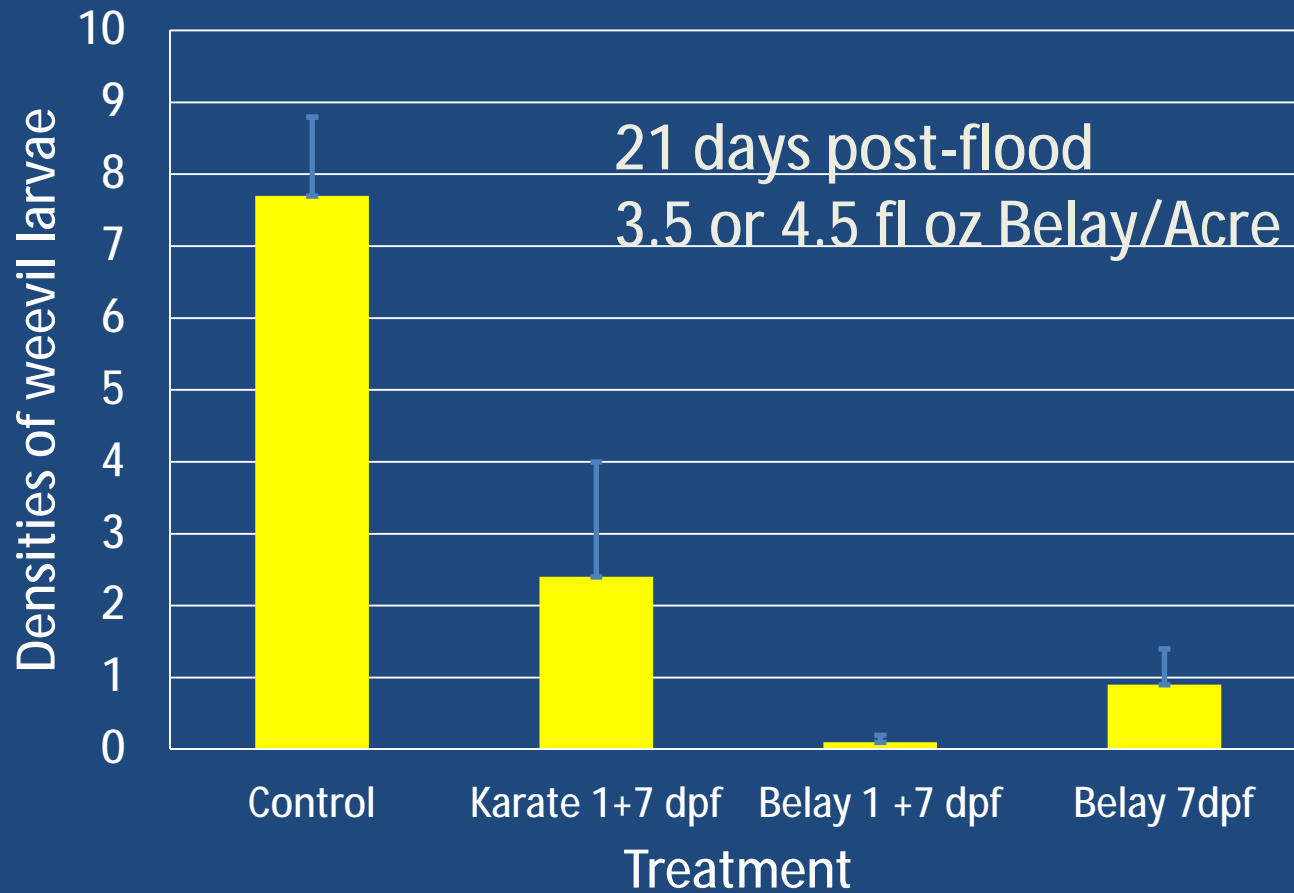
# Belay (foliar) label

- Active ingredient: Clothianidin
- Rate: 4.5 fl oz/acre (0.075 lb ai/acre)
- Use in a manner similar to pyrethroids; hold water for at least 14 days after treatment
- Do not apply > 0.2 lbs ai/acre/year
- "Do not use Belay-treated rice fields for the aquaculture of edible fish and crustaceans..."
- Aphids, thrips chinch bugs & seed midge (suppression), rice water weevil

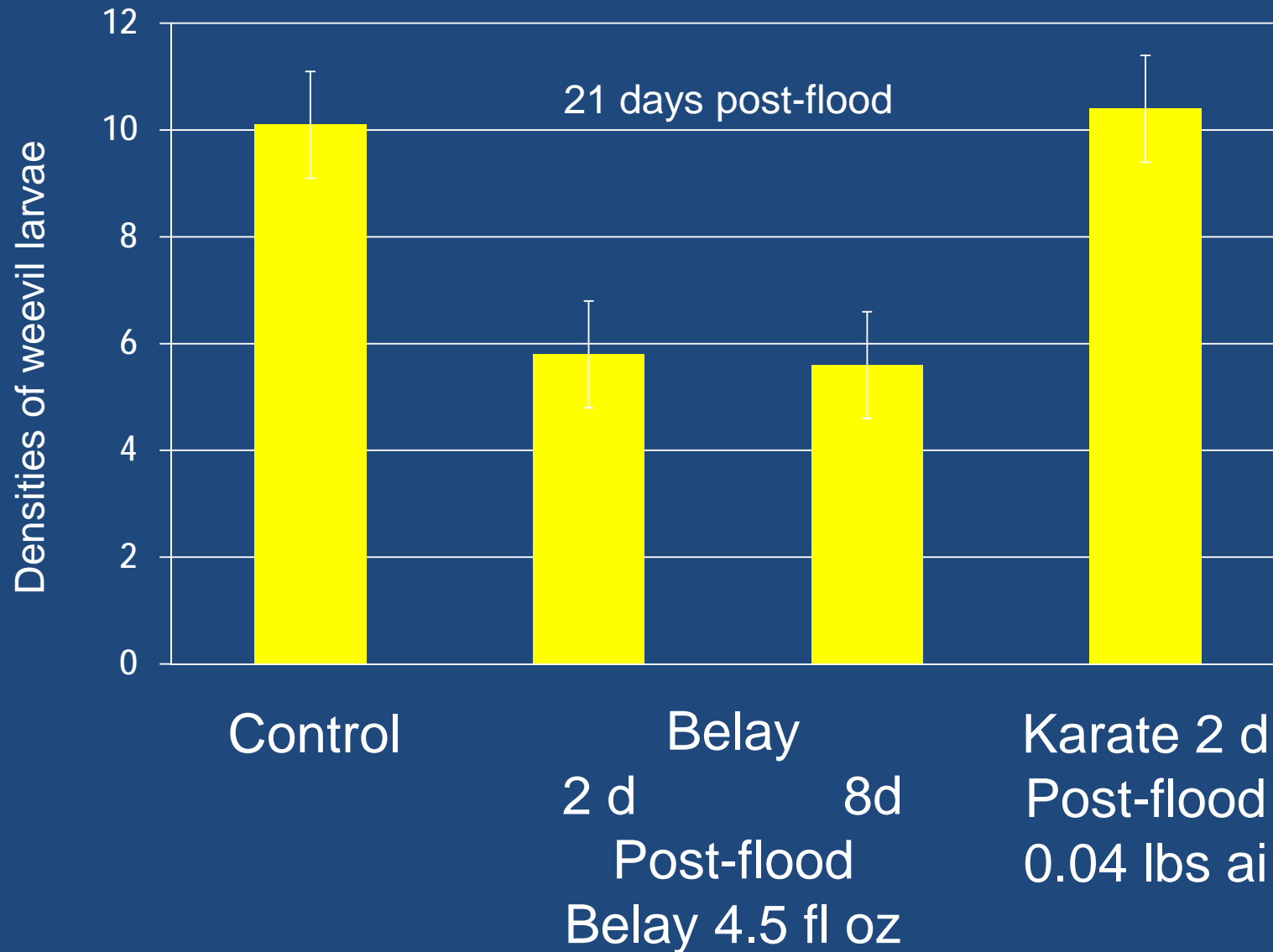
# Use of Belay

- Use in a manner similar to pyrethroids
- May begin scouting any time after rice emergence
- Check 10 locations every 3-4 days
- Threshold: adults or fresh feeding scars + water (“conditions favorable for egg-laying”)
- Target: prevention of egg-laying by killing adults; egg-laying occurs in standing water
- Applications made shortly before flooding have been shown to be most effective

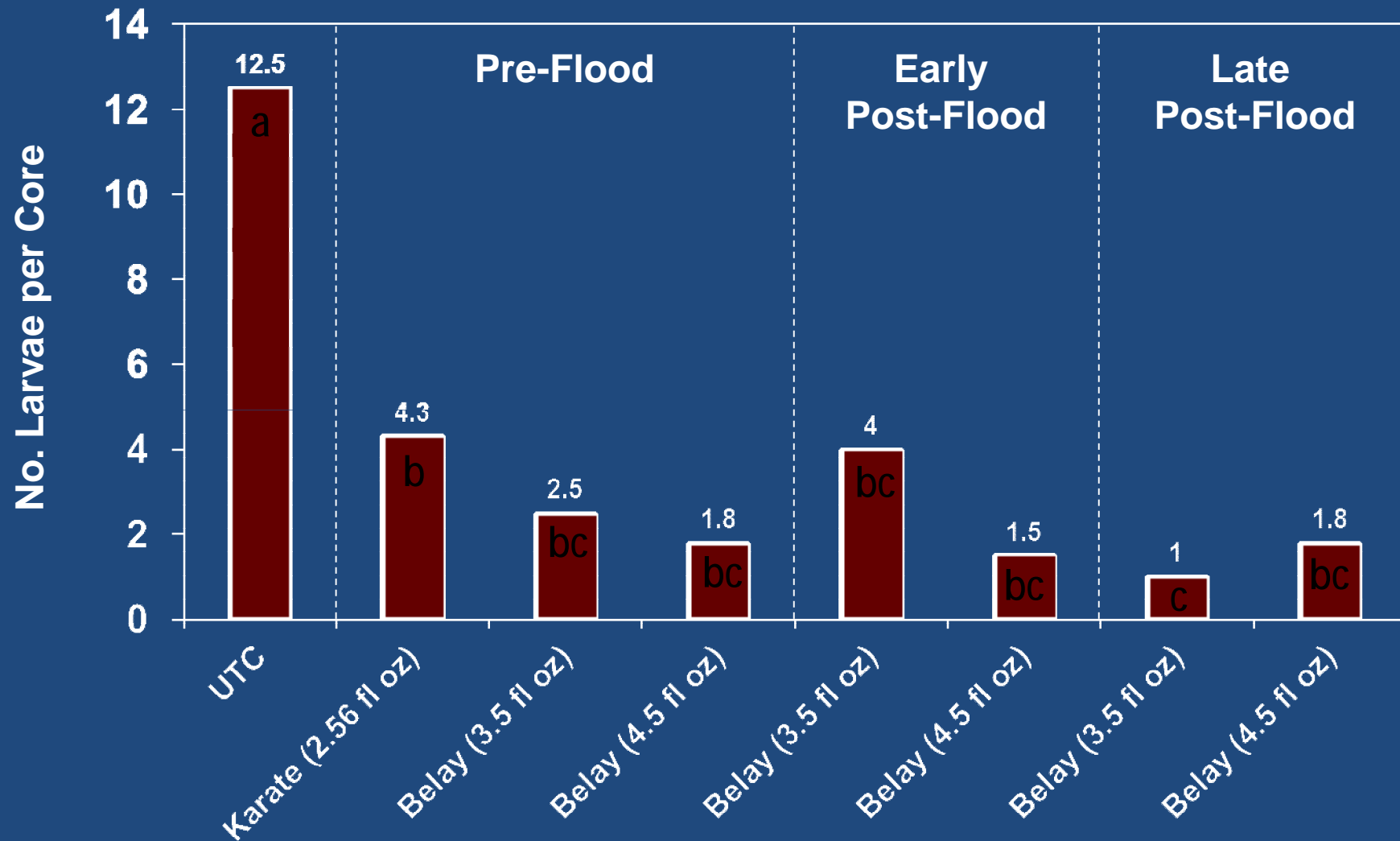
# Effectiveness of Belay post-flood foliar application in water-seeded rice, 2009



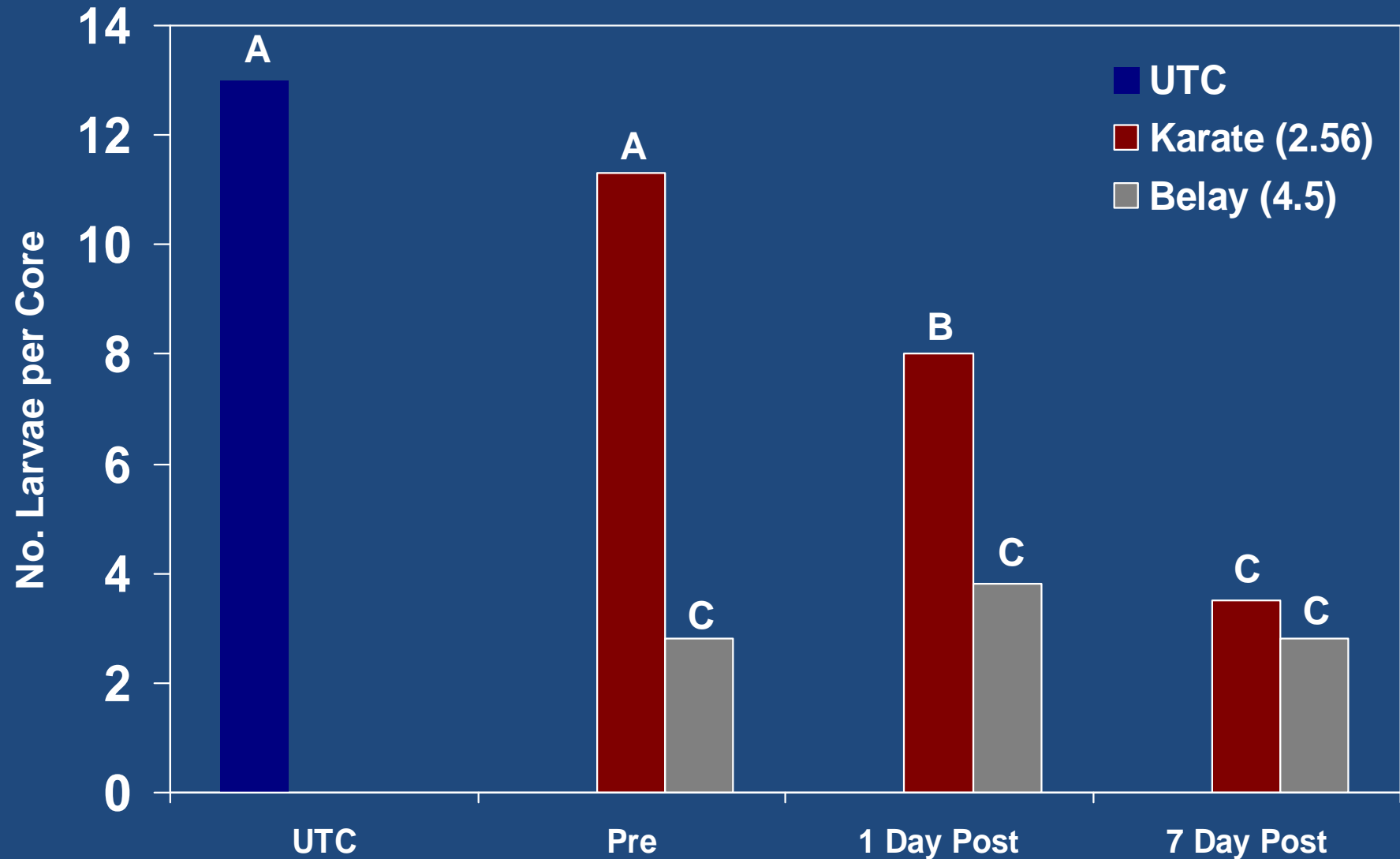
# Effectiveness of Belay post-flood foliar application in water-seeded rice, 2012

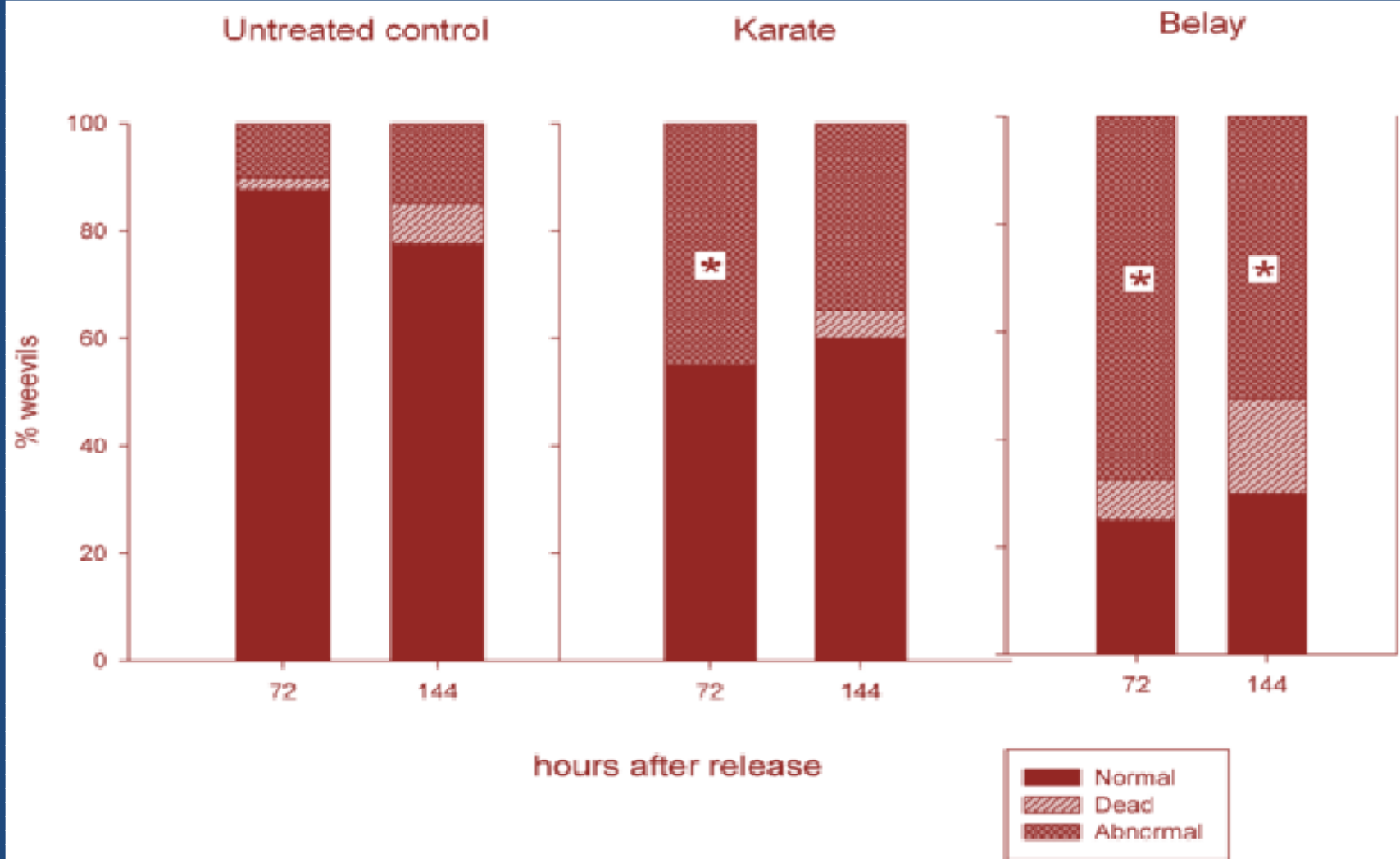


# Efficacy of Belay for Rice Water Weevil Control



# Foliar Application Timings - RWW





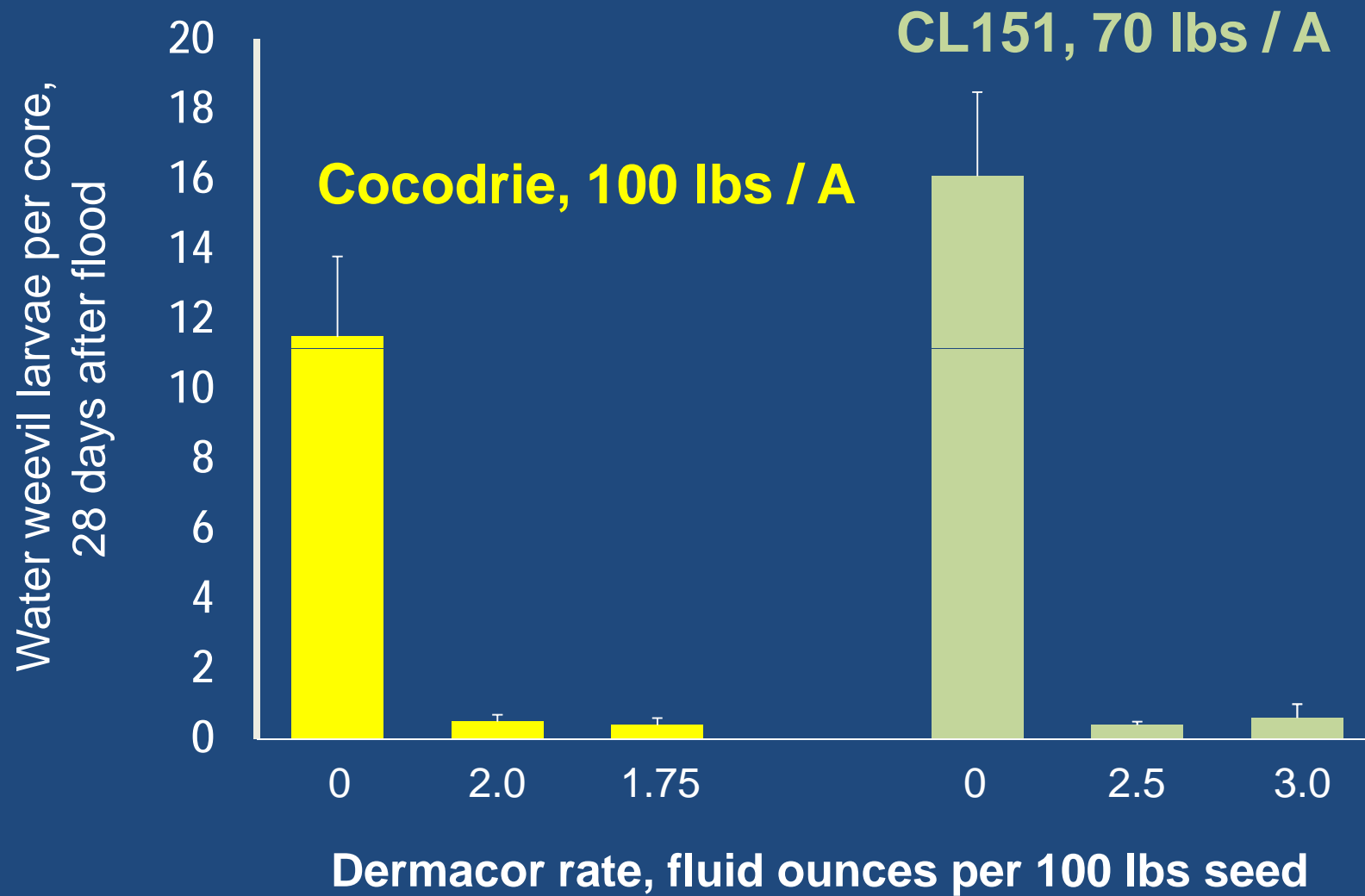
**Fig2. 72 hr-post treatment residual bioassay conducted on leaves in water-seeding experiment 2011**

# Dermaacor X-100 water-seeded label

- 24(c) "Special local need"
- Allows seeding with dry treated seed (no pre-sprouting)
- "For control of Mexican rice borer"
- 100-125 lbs seeding rate: 2.0 fl oz per 100 lb seed



# Dermacor X-100, dry treated seed broadcast into flood (24c)



# Dermacor X-100 2(ee) Recommendation

	Rice seeding rate		
2(ee) rate (fl oz per 100 lbs)			Approximate "normal" rate
1.5	80	120	2.0-1.5
1.75	70	79	2.5
2.5	50	69	5.0-2.5
5	20	35	5.0

May allow cost-effective use of  
Dermacor/neonicotinoid combinations

# Cost of Dermacor/Neonic combinations

- 25 lb seeding rate
- 5 oz Dermacor per cwt: ~\$15.00 per acre
- Nipsit/Cruiser: ~\$5.00 per acre
- Total cost: ~\$20.00 per acre

# Insecticides and Crawfish

- All weevil insecticides are toxic to crawfish
- All insecticides have restrictions on labels

## Pyrethroids

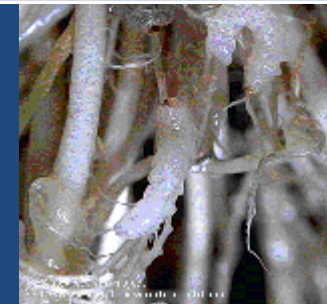
Karate Z  
Mustang Max  
Declare  
Prolex/Proaxis

## Neonicotinoids / Anthranilic diamides

Dermacor  
CruiserMaxx  
NipsitInside  
Belay

# Rice water weevil – cultural practices

Water management	Planting date	Seeding rate
Draining	Early planting	Avoiding low seeding rates
Delayed flooding		
Shallow flooding		



Thank you for your support!

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