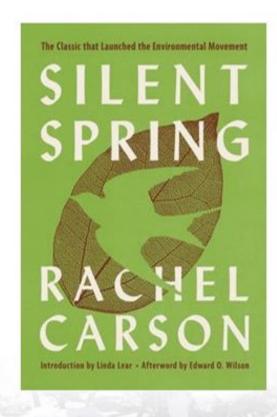


Don Parker, VP Technical Services

National Cotton Council







What is the Endangered Species Act?







By: Ceci Tucker

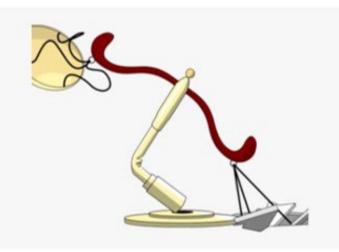


What about this?





Endangered Species Act vs. FIFRA



ESA

- Mandates any Federal Action that may affect endangered species requires consultation with NMFS/FWS
- NMFS/FWS say they lack staff slow process
- Develop Biological Opinion less data driven
- No Risk/Benefits or Economic Consideration
- Lawsuits

FIFRA

- Mandates timely review of pesticide safety – deadline dates
- FQPA Drinking Water, Dietary, and combined; Human Health Risk Assessment; Ecological Risk Assessment based on data; Terrestrial, Aquatic, Pollinators
- Risk/Benefits mandate
- Consultation failure with the Services

 deadline dates for review
- Lawsuits



NMFS and FWS = Services







ECOS: Home (fws.gov)



U.S. Fish & Wildlife Service

Search ECOS

Q

ECOS Environmental Conservation Online System

Conserving the Nature of America

ECOS / Home

Public Applications

Conservation Plans

Wildlife & Environmental Contaminants Mapper

Information for Planning and Consultation (IPaC)

Species Reports

Web Services

Secure Applications

■ Secure Login

Related Sites

FWS Endangered Species Program

National Wildlife Refuge System

Threatened & Endangered Species

ECOS serves a variety of reports related to FWS Threatened and Endangered Species. A selection of our most popular reports is listed below. See the <u>Species Reports</u> for the complete list.

- All Threatened and Endangered Animals
- All Threatened and Endangered Plants
- Critical Habitat Report
- Section 7 Consultation Issued Biological Opinions
- Delisted Species
- Listed Species Summary (Boxscore)
- Reclassified Species

OBTAINING AN OFFICIAL SPECIES LIST:

Use <u>IPaC</u> to identify your project location and receive an official species list (pursuant to 50 CFR 402.12) of T&E species that should be considered when evaluating the potential impacts of a project.

ADDITIONAL SEARCH TOOLS:

Search for a Listed species by name:	Search for a Listed species by County name:

Wildlife & Environmental Contaminants Mapper

The Wildlife & Environmental Contaminants Mapper displays the locations of over 100,000 samples from



(Sec. 7.a.2) "Each Federal agency shall, in consultation with the with the assistance of the Secretary, insure
that any action authorized, funded, or carried out by such agency (hereinafter referred to as an "agency
action") is not likely to jeopardize the continued existence of any endangered species or threatened species
or result in the destruction or adverse modification of habitat of such species, which is determined by the
Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been
granted and exemption for such action by the Committee pursuant to subsection (h) of this section."

 ESA's prohibition to Take (defines as "to harass, harm, pursue, hunt, shoot, would, kill, trap, capture, or collect, or to attempt to engage in any such conduct")



U.S. Supreme Court Tennessee Valley Auth. v. Hill, <u>437 U.S.</u>

153 (1978) Tennessee Valley Authority v. Hill No. 76-1701 Argued April 18, 1978 Decided June 15, 1978

- Held:
- 1. The Endangered Species Act prohibits impoundment of the Little Tennessee River by the Tellico Dam. Pp. 437 U. S. 172-193.
- (a) The language of § 7 is plain, and makes no exception such as that urged by petitioner whereby the Act would not apply to a project like Tellico that was well under way when Congress passed the Act. Pp. 437 U. S. 172-174.
- (b) It is clear from the Act's legislative history that Congress intended to halt and reverse the trend toward species extinction -whatever the cost.

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued September 15, 2022

Decided November 22, 2022

No. 21-1270

IN RE: CENTER FOR BIOLOGICAL DIVERSITY AND CENTER FOR FOOD SAFETY, PETITIONERS

FMC CORPORATION AND SYNGENTA CROP PROTECTION, LLC, INTERVENORS

On Petition For Writ of Mandamus

Accordingly, we grant the writ. EPA is ordered to complete cyantraniliprole's effects determination and replace its previous order with an order consistent with the ESA by September 2023. To add bite to our writ, we will retain jurisdiction and monitor EPA's progress. EPA is directed to submit status updates every 60 days between now and September 2023. Should EPA fail to meet its September deadline, petitioners are free to renew their motion for vacatur of cyantraniliprole's registration order.





Council ...



Don Parker
V.P. Technical Services
National Cotton Council

Why are label requirements changing?

- The law requires that all pesticide registration be review every 15 year to ensure the product meets the current registration requirements.
- As science and information advances, new requirements and refinements are developed for the risk assessment process.
- Products that may be registered currently may not be approved, or may require additional restrictions, to meet registration requirements.



NEED TO KNOW!: Two Major Changes

- Several, if not all, new labels will contain a list of conservation practices and require the product user to pick one or more of the practices to use the product.
- All labels will have a statement referring to Endangered Species with a REQUIREMENT to consult Bulletins Live! Two website.

Pick-List Mitigations

Bulletins Live! Two



Briefly Explained

- Bulletins Live! Two
- You are required to access the web site within 6 months of the application.
- On the provided map, identify the application area.
- Enter the month for the application and the EPA Registration Number.
- The site will generate a document, called a bulletin.
- Print the bulletin and comply. It is a legal part of your product label specific to the application area.

- Pick-List Mitigations
- The label will list several practices identified to reduce concerns of pesticide movement with water and/or sediment.
- The label will require you to identify which of these practices you have implemented prior to use of the product. It may require one or more of these practices.
- For your protection and legal compliance, maintain records that identify your pick-list items.



What Type of Items are on the Pick-List Currently?

- Vegetative filter strip (minimum width 30 ft for surface water runoff, 20 ft for soil erosion)
- Field border
- Field terracing/ contour buffer strips
- Contour farming
- Cover cropping
- No/reduce tillage
- Grassed waterways

- Riparian buffer zone/ riparian herbaceous zone
- Vegetative/grassed ditch banks
- Runoff retention pond/ water and sediment control basin/ sediment catchment basin/ constructed wetland
- · Strip cropping
- Vegetative barriers
- Mulching with natural materials
- Alley cropping



Are there other label changes?

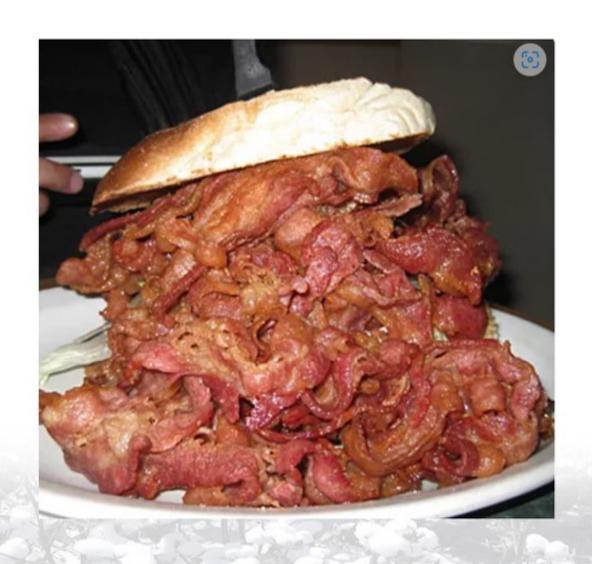
 Yes, there are several other changes that you may see on current labels. Some labels will have more restrictions associated with wind speed at the time of the application, types of nozzles, ground equipment and aerial application restriction, buffers, pollinator language, and more.

 Read and follow label instructions to protect yourself from legal repercussions.





Don's BLT



EPA's BLT

Endangered Species Protection Bulletins

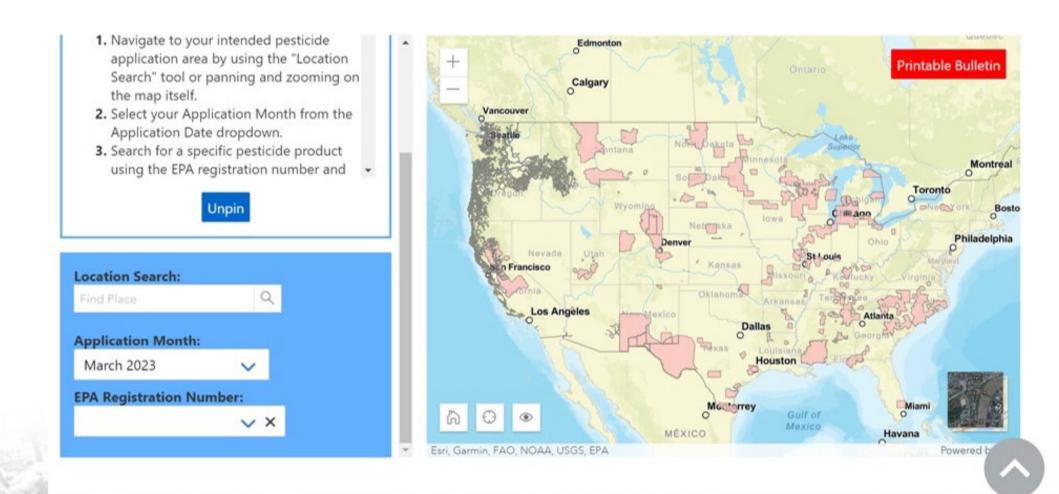
Endangered Species Protection Bulletins are a part of EPA's Endangered Species Protection Program. Bulletins set forth geographically specific pesticide use limitations for the protection of threatened and endangered (listed) species and their designated critical habitat.

- Obtain Bulletins using EPA's Bulletins Live! Two application.
- · Read the tutorial Bulletins Live! Two.
- Go to the quick start guide.
- · View the April 2019 webinar for Bulletins Live! Two.
- Learn How to locate the EPA Registration number to search for product in Bulletins Live! Two.

https://www.epa.gov/endangered-species/endangered-species-protection-bulletins



Bulletins Live! Two Website





Who Should Access Bulletins Live! Two Website?

Everyone who maintains pesticide application records!



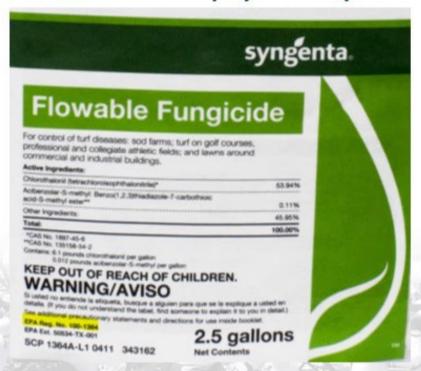
Why Should I Access BLT?

- The Bulletins are a legal part of the pesticide label and are thereby a legal requirement!
- Bulletins allow EPA to identify and address pesticide use concerns based on location of the use rather than impose the same requirement for areas not of concern.
- BLT is an evolving database that identifies locations with proximity to endangered species and/or their associated habitat.
- EPA uses Bulletins to provide location-specific use requirement that are designed to be more protective of Endangered Species.
- EPA may be required to add restrictions when Fish and Wildlife Services and/or Marine and Fisheries Services finalized their Biological Opinion as required to comply with the Endangered Species Act.



What should I Do?

 Currently, BLT requires the EPA Registration number to identify the product you intend to use. This information may be located on the front or back of the label. An example is shown below. The example does not imply NCC partiality to the product or the registrant.





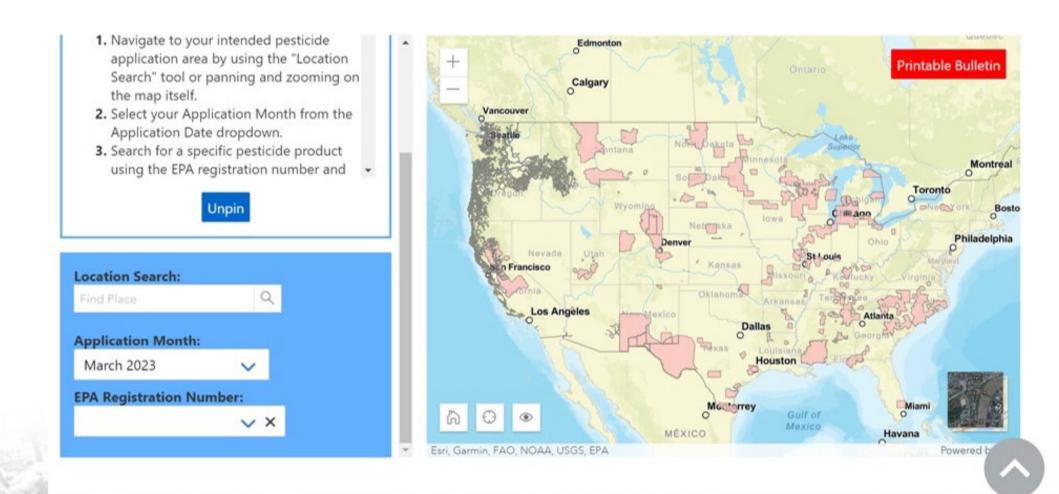


What Should I Do?

- At most, 6 months prior to the application access the BLT website.
- Enter the month you plan to make the application.
- Enter the EPA Registration Number for the product.
- Click on the map to locate where you plan to make the application.
- Wait for the red "Printable Bulletin" rectangle to turn green.
- Click on the green rectangle to download the bulletin.
- Print the Bulletin, read the requirements, and keep the bulletin filed with your records.



Bulletins Live! Two Website





What if the bulletin does not have additional restrictions for me?

- Still print the bulletin and file in your records.
- The BLT database will be an on-going development as additional information is added. Your requirements may change over time.
- You are required to go to the web site and generate the bulletin within 6 months of the application. If your bulletin does not have requirements in addition to the label, it may at a later date. For this reason, you should always go to BLT, print your bulletin, and file it to show you complied with the requirements within 6 months of the application.



Where can I get additional Information?

 For additional Information, including tutorials, visit the following web site:

 https://www.epa.gov/pesticides/epa-improves-online-applicationprotect-endangered-species



IS THIS PROCESS PERFECT?

No – do you have a better idea?



Herbicide Strategy Example Don Parker NCC

8-1. General label spray drift mitigations identified for metolachlor. Mitigations Related to Single Maximum Application Rate, Application Method and Droplet Size.1

Single Maximum		Identified Downwind	d Spray Drift Buffer Distances (ft)				
Application Rate (lb ai/A)2	Aeria	al Application			Ground Application		
				Very Fine-	Very Fine-	Fine-	Fine-
	Fine-	Medium-	Coarse-Very	Fine,	Fine,	Medium/	Medium/
	Medium	Coarse	Coarse	High	Low	Coarse,	Coarse,
				Boom	Boom	High Boom	Low Boom
2.67	25a	20a	20a	20b	Nones	None ₃	None ₃
1.9 – 2.0	10a	Nones	None ₃	None ₃	Nones	None ₃	None ₃
1.0 - 1.2	Nones	None ₃	Nones	None ₃	Nones	None ₃	None ₃
Mitigation			nitigation with a windbreak break) alone without a buffer.			t mitigation with a windb dbreak/hedgerow) or ho	
Measures	(release neight	below the top of the wind	oreaxy dione without a buffer.	without a buffer		adically neagerowy or no	oded sprayers drone
the							
Pesticide							
Applicator							
can Elect to							
Reduce							
Buffer							
Distances4							

8-2. PULAs 1-4 spray drift mitigations identified for metolachlor. Mitigations Related to Single Maximum Application Rate, Application Method, and Droplet Size.1

Single Maximum		Identified Downwind	Spray Drift Buffer Distances	(ft)			
Application Rate	Aerial A	Application		G	Ground Application		
(Ib ai/A)2	Fine- Medium	Medium- Coarse	Coarse-Very Coarse	Very Fine- Fine, High Boom	Very Fine- Fine, Low Boom	Fine- Medium/ Coarse, High Boom	Fine- Medium/ Coarse Low Boom
2.67	300 ft + windbreak 3	300 ft + windbreak 3	200 ft + windbreak3	175 e.gh	75 g.h	50 g,h	25:
1.9 – 2.0	300 ft + windbreak 250 a,b,c 175 a,b,d		175 a,b,d	125 e.gh	50 g,h	251	20:
1.0 - 1.2	300 a,b, c	175 a,b,d	125 b,d	75 gh	50 g.h	201	10:
Mitigation Measures the Pesticide Applicator can Elect to Reduce Buffer Distances4	ft if crop height at b Windbreak (rele- distance by half. c Buffers ≥250 ft c application is >70% d Buffers 75-175 ft	ould be reduced by 25 tapplication is ≥1 ft. ase height below top of word ould be reduced by 25 ft tould be reduced by dat application is 3-7 mile	•	humidity at applic f Fine-Medium/Co coarse or coarser g Windbreak/Hedg distance by half h Hooded Sprayers The applicator we with a windbreak	arse-Low Boom buffers	≥75 ft could be reduced low top of windbreak) by half nitigation eight below the top of t	reduces buffer

8-3. General label spray drift mitigations identified for 2,4-D. Mitigations Related to Single Maximum Application Rate, Application Method, and Droplet Size.

Single Maximum		identified Downw	ind Spray Drift Buffer Dista	istances (it)						
Application Rate	Ae	erial Application		Ground Application						
(Ib ai/A)s	Fine- Medium	Medium- Coarse	Coarse-Very Coarse	Very Fine- Fine, High Boom	Very Fine- Fine, Low Boom	Fine- Medium/ Coarse, High Boom	Fine- Medium/ Coarse, Lov Boom			
2.0	300 a,b,c	300 a,b,c	200 a,b	200 f.g.h	100 f.g.h	100 f,g,h	50 g,h			
1.5	300 a,b,c	300 a,b,c	200 a,b	200 f,g,h	100 f,g,h	75 g.h	50 g,h			
0.50	300 a,b,c	175 a,b,d	125 b,d	100 f,g,h	50 gh	20 i	10			
0.07	50 ь	20 e	20 e	20 i	10:	None4	None ₄			
Altigation Measures the Pesticide Applicator can Elect to Reduce Buffer Distancess	b Windbreak w buffer distance half. c Buffers ≥250 application is > d Buffers 75-17 application is 3 e The application mitigation with	ft could be reduced by 25 ft i	f relative humidity at t if windspeed at	buffer distance by h h Hooded Sprayers i The applicator wo (release height belo	erow (release height be nalf reduce buffer distance uld achieve sufficient r ow the top of	elow top of windbreak) re by half mitigation with a windbre ayers alone without a bu	eak or hedgero			



8-4. PULAs 1 and 3 spray drift mitigations identified for 2,4-D. Mitigations Related to Single Maximum Application Rate, Application Method, and Droplet Size.

Maximum				y Drift Buffer Distances (ft)						
Application	Aeria	al Application		Ground Application						
Rate (lb ae/A)2	Fine- Medium	Medium- Coarse	Coarse-Very Coarse	Very Fine- Fine, High Boom	Very Fine- Fine, Low Boom	Fine-Medium/ Coarse, High Boom	Fine-Medium/ Coarse, Low Boom			
2.0	300 + windbreaks	300a,b,c	200a,b	200e,g.h	100e,g,h	100e,g,h	100 _{e,f,g,h}			
1.5	300 + windbreaks	300a,b,c	200a,b	200 _{e,g,h}	100e,g,h	100e,g,h	100 _{e,f,g,h}			
0.50	300 a,b,c	300 a,b,c	200 a,b	200 e,g,h	100 e.g.h	100 e,g,h	50 g.h			
0.07	175 a,b,d	125 b,d	75 b,d	50 gh	20 i	101	10:			
Mitigation Measures the Pesticide Applicator can Elect to Reduce Buffer Distances4	if crop height at a b Windbreak (rele windbreak) redu c Buffers ≥250 ft humidity at appli d Buffers 75-175		top of e by half. by 25 ft if relative	application is >6 fine-Medium/C reduced by 25 ft gWindbreak/Her windbreak) redu h Hooded Spraye The applicator of below the top of	0% Coarse-Low Boom buff with coarse or coarse dgerow (release heigh ices buffer distance by ers reduce buffer dista would achieve sufficie f the	er droplets t below top of half nce by half	reak or hedgerow (release height r.			



8-6. General Label: Runoff/erosion Points for Terrestrial Areas

					Wickinsulin	Oxymdorien	. araquat	Pendimethalin	riopailii	modericarb	minuralin
NA	NA	9	3	NA	6	NA	0	3	NA	NA	5
3	NA	9	NA	NA	NA	5	0	3	NA	NA	5
6	6	6	NA	6	6	7	0	3	NA	NA	5
NA	6	6	NA	6	NA	5	0	3	NA	NA	5
3	NA	9	NA	NA	NA	7	0	5	NA	NA	5
NA	NA	NA	3	NA	6	NA	0	3	NA	NA	NA
6	3	6	3	1	6	NA	0	3	NA	NA	5
6	NA	9	NA	NA	NA	5	0	3	NA	NA	5
6	NA	NA	NA	NA	NA	NA	0	3	NA	NA	5
NA	NA	NA	NA	NA	NA	NA	0	NA	0	0	NA
6	6	NA	NA	6	6	5	0	NA	NA	NA	5
6	6	6	3	6	6	5	0	3	NA	NA	5
6	6	6	3	NA	6	NA	0	NA	NA	NA	5
1	3 6 1A 3 1A 6 6	3 NA 6 6 NA NA 6 3 NA NA 6 NA NA 6 NA 6 NA 6 NA 6 NA 6 NA	3 NA 9 6 6 6 NA 6 6 3 NA 9 NA NA NA 6 3 6 NA 9 6 NA	3 NA 9 NA 6 6 NA NA 6 NA NA 9 NA NA NA NA 3 6 NA 9 NA	3 NA 9 NA NA 6 6 6 NA 6 NA 6 NA 6 NA 9 NA	3 NA 9 NA NA NA 6 6 6 NA 6 6 NA 6 NA 6 NA NA 9 NA NA NA NA NA NA NA 6 NA 9 NA NA NA NA NA NA NA NA NA NA NA NA NA	3 NA 9 NA NA NA 5 6 6 6 NA 6 6 7 NA 6 NA 6 NA 5 NA 9 NA NA NA 7 NA NA NA NA NA NA 6 NA NA NA NA NA NA 6 NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA	3 NA 9 NA NA NA 5 0 6 6 6 NA 6 6 7 0 NA 6 NA 6 NA 5 0 NA 9 NA NA NA 7 0 NA NA NA NA 0 0 NA NA NA NA 0 0 NA NA NA NA NA 0 NA NA NA NA NA 0 0 NA NA NA NA NA 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 NA 9 NA NA NA 5 0 3 6 6 6 NA 6 6 7 0 3 NA 6 NA 6 NA 5 0 3 NA 9 NA NA NA 7 0 5 NA NA NA NA 0 3 0 3 NA NA NA NA 0 3 0 3 NA NA NA NA NA NA 0 3 NA NA NA NA NA NA 0 3 NA NA NA NA NA NA 0 NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA	3 NA 9 NA NA NA 5 0 3 NA 6 6 6 NA 6 6 7 0 3 NA IA 6 NA 6 NA 5 0 3 NA IA NA 9 NA NA NA 7 0 5 NA IA NA NA NA 0 3 NA NA IA NA NA NA 0 3 NA NA IA NA 9 NA NA NA NA NA NA NA IA NA 9 NA NA <t< td=""><td>3 NA 9 NA NA NA 5 0 3 NA NA 6 6 6 6 7 0 3 NA NA IA 6 6 NA 5 0 3 NA NA IA NA 9 NA NA NA 7 0 5 NA NA IA NA NA NA 0 3 NA NA IA NA NA NA 0 3 NA NA IA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA</td></t<>	3 NA 9 NA NA NA 5 0 3 NA NA 6 6 6 6 7 0 3 NA NA IA 6 6 NA 5 0 3 NA NA IA NA 9 NA NA NA 7 0 5 NA NA IA NA NA NA 0 3 NA NA IA NA NA NA 0 3 NA NA IA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA NA NA NA NA NA NA IA NA NA



8-7. General Label: Runoff/erosion Points for Wetland and Aquatic Areas

UDL	2,4-D	Dicamb a	Diuron	MCPA	Metolachl or	Metribuzi n	Oxyfluorfe n	Paraqua t	Pendimethali n	Propani I	Thiobencar b	Triflural n
Alfalfa	NA	NA	9	3	NA NA	6	NA NA	0	5	NA	NA	3
Citrus	3	NA	9	NA	NA	NA	7	0	3	NA	NA	3
Corn	6	6	6	NA	6	6	7	0	3	NA	NA	3
Cotton	NA	6	9	NA	6	NA	7	0	3	NA	NA	5
Grapes	3	NA	9	NA	NA	NA	7	0	5	NA	NA	3
Other Crops	NA	NA	NA	3	NA	6	NA	0	3	NA	NA	NA
Other Grains	6	3	9	3	6	6	NA	0	3	NA	NA	3
Other Orchards	6	NA	9	NA	NA	NA	7	0	3	NA	NA	3
Other Row Crops	6	NA	NA	NA	NA	NA	NA	0	3	NA	NA	3
Rice	NA	NA	NA	NA	NA	NA	NA	0	NA	9	5	NA
Soybeans	6	6	NA	NA	6	6	5	0	NA	NA	NA	3
VGF	6	6	9	3	6	6	5	0	3	NA	NA	3
Wheat	6	6	9	3	NA	6	NA	0	NA	NA	NA	3



8-8. PULA 1: Runoff/erosion Points for Terrestrial Areas and Dicots

Alfalfa NA NA 9 3 NA 6 NA General 5 NA NA Citrus 6 NA 9+ NA NA NA 7 General 5 NA NA Corn 6 9 9 NA 9 6 7 General 5 NA NA Cotton NA 9 NA 9 NA 7 General 5 NA NA Grapes 6 NA 9+ NA NA NA 7 General 5 NA NA Other Crops NA NA NA NA NA NA NA NA Other Grains 6 6 9 6 6 6 NA NA NA NA Other Row Crops 6 NA NA NA NA NA NA NA NA	Triflurali n	Thiobencar b	Propanil	Pendimethali n	Paraquat	Oxyfluorfe n	Metribuzi n	Metolachlo r	MCPA	Diuron	Dicamba	2,4-D	UDL
Corn 6 9 9 NA 9 6 7 General 5 NA NA Cotton NA 9 NA 9 NA 7 General 5 NA NA Grapes 6 NA 9+ NA NA NA 7 General 7 NA NA Other Crops NA NA NA NA General 5 NA NA Other Grains 6 6 9 6 6 NA General 5 NA NA Other Row 6 NA 9 NA NA NA NA NA NA NA NA	General		NA	1000	General			NA	3	9	NA	NA	Alfalfa
Cotton NA 9 9 NA 9 NA 7 General 5 NA NA Grapes 6 NA 9+ NA NA NA NA 7 General 7 NA NA Other Crops NA NA NA 3 NA 6 NA General 5 NA NA Other Grains 6 6 9 6 6 6 NA General 5 NA NA Other Orchards 6 NA 9 NA NA NA NA NA NA NA Other Row 6 NA NA NA NA NA NA NA NA NA	General	NA	NA	5	General	7	NA	NA	NA	9+	NA	6	Citrus
Grapes 6 NA 9+ NA NA NA 7 General 7 NA NA Other Crops NA NA NA 3 NA 6 NA General 5 NA NA Other Grains 6 6 9 6 6 6 NA General 5 NA NA Other Orchards 6 NA 9 NA NA NA NA NA NA NA Other Row 6 NA NA NA NA NA NA NA NA	General	NA	NA	5	General	7	6	9	NA	9	9	6	Corn
Other Crops NA NA NA 3 NA 6 NA General 5 NA NA Other Grains 6 6 9 6 6 6 NA General 5 NA NA Other Orchards 6 NA 9 NA NA NA NA NA NA NA NA Other Row 6 NA NA NA NA NA NA NA NA NA	General	NA	NA	5	General	7	NA	9	NA	9	9	NA	Cotton
Other Grains 6 6 9 6 6 NA General 5 NA NA Other Orchards 6 NA 9 NA NA <td>General</td> <td>NA</td> <td>NA</td> <td>7</td> <td>General</td> <td>7</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>9+</td> <td>NA</td> <td>6</td> <td>Grapes</td>	General	NA	NA	7	General	7	NA	NA	NA	9+	NA	6	Grapes
Other Orchards 6 NA 9 NA NA NA NA 7 General 5 NA NA NA Other Row 6 NA	NA	NA	NA	5	General	NA	6	NA	3	NA	NA	NA	Other Crops
Orchards 6 NA 9 NA NA NA NA 7 General 5 NA NA NA Other Row 6 NA	General	NA	NA	5	General	NA	6	6	6	9	6	6	Other Grains
6 NA NA NA NA NA NA General 5 NA NA	General	NA	NA	5	General	7	NA	NA	NA	9	NA	6	
	General	NA	NA	5	General	NA	NA	NA	NA	NA	NA	6	
Rice NA NA NA NA NA NA NA General NA General General	NA	General	General	NA	General	NA	NA	NA	NA	NA	NA	NA	Rice
Soybeans 6 9 NA NA 9 6 7 General NA NA NA	General	NA	NA	NA	General	7	6	9	NA	NA	9	6	Soybeans
VGF 6 9 9 3 9 6 5 General 5 NA NA	General	NA	NA	5	General	5	6	9	3	9	9	6	VGF
Wheat 6 6 9 6 NA 6 NA General NA NA NA	General	NA	NA	NA	General	NA	6	NA	6	9	6	6	Wheat



8-9. PULA 2: Runoff/erosion Points for Terrestrial Areas and Monocots

UDL	2,4-D	Dicamba	Diuron	MCPA	Metolachior	Metribuzin	Oxyfluorfen	Paraquat	Pendimethalin	Propanil	Thiobencarb	Trifluralin
Alfalfa	NA	NA	9	3	NA	6	NA	General	5	NA	NA	General
Citrus	General	NA	9+	NA	NA	NA	7	General	5	NA	NA	General
Corn	General	General	9	NA	9	6	7	General	5	NA	NA	General
Cotton	NA	General	9	NA	9	NA	7	General	5	NA	NA	General
Grapes	General	NA	9+	NA	NA	NA	7	General	7	NA	NA	General
Other Crops	NA	NA	NA	3	NA	6	NA	General	5	NA	NA	NA
Other Grains	General	General	9	6	6	6	NA	General	5	NA	NA	General
Other Orchards	General	NA	9	NA	NA	NA	7	General	5	NA	NA	General
Other Row Crops	General	NA	NA	NA	NA	NA	NA	General	5	NA	NA	General
Rice	NA	NA	NA	NA	NA	NA	NA	General	NA	General	General	NA
Soybeans	General	General	NA	NA	9	6	7	General	NA	NA	NA	General
VGF	General	General	9	3	9	6	5	General	5	NA	NA	General
Wheat	General	General	9	6	NA	6	NA	General	NA	NA	NA	General



Runoff/Erosion Mitigation Menu

Field Management

- Contour farming (2 points)
- Cover crop (1 point)
- Grassed waterway (1 point)
- In-field vegetative filter strip (3 points)
- Irrigation water management (1 point)
- Mulching with natural materials (3 points)
- Residue tillage management (2 points)
- Terrace farming (2 points)

Field Characteristics (1 point each)

- Application to sand, loamy sand, or sandy loam soil without a restrictive layer
- Flat or nearly flat field (<2% slope)
- Fields in western farmland

- Application Parameters

- Rate reduction (points based on percent reduction in application rate)
- Soil incorporation (2 points)

- Adjacent to the Field or In-between field and Habitat

- 30-ft vegetative filter strip (2 points)
- Riparian area (3 points)
- Vegetated ditch (1 point)

Other Mitigations

- Water retention system (2 points)
- Both on-field and adjacent to the field mitigation utilized (1 point)



PRODUCER LIABILITY

Who will enforce?

Who found Starlink in cereal?

