

Dragons and Damsels are Here!

If it is summertime in North Central Texas, then it is dragonfly season. Chances are you have seen dozens of these amazing insects in your gardens, backyards, and fields. They are important to the environment and the natural control of insect pests. Of the 5952 different species of dragonflies and damselflies in North America, 147 dragonflies and 74 damselflies are found in Texas. As with many of nature's creatures, as we learn more about these insects, we truly appreciate how fascinating and important they are.

Dragonflies and damselflies play an important role in aquatic and terrestrial habitats. Their nymphs eat mosquitoes and midge larvae, as well as small fish and tadpoles, and serve as food for fish and amphibians. Adults are eaten by birds, bats, lizards, and spiders. Dragonflies and damselflies provide information about the health and diversity of a habitat.

Dragonflies and their "cousins", damselflies, belong to the scientific order Odonata. While there are similarities between the two, there are also several differences.



DRAGONFLIES

- wider abdomen
- eyes touch (or nearly so)
- hindwings broader than forewings
- wings held horizontal when perched



DAMSELFLIES

- slender abdomen
- eyes separated
- equal sized wings
- wings folded above or along body

when perched

Fall 2019

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UPCOMING PROGRAMS

- Nov. 12, 2019 North Central Texas Cattleman's Clinic
 Young County Arena, Graham
- January 16, 2020 Pesticide Workshop 5 CEU Program Palo Pinto Extension Office

Texas A&M AgriLife Extension provides equal opportunities in its programs and employment to all persons, regardless of race, color, sex, religion, national origin, disability, age, genetic information, veteran status, sexual orientation, or gender identity." "The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating"

Dragons & Damsels

Dragonflies and damselflies begin their lives in aquatic habitats, such as ponds, lakes, rivers, and streams. The eggs hatch into nymphs who spend their lives as voracious predators. As the nymph nears the end of this life stage, it crawls out of the water onto a plant or rock to emerge from its exoskeleton as a young adult. Once the adult has matured, it begins its life stage that includes hunting for insects and reproducing.

Dragonflies are skilled flyers. Their four wings move independently of one another, allowing the insect to hover, shoot up, zigzag, or even fly backwards for short distances. The dragonfly can fly up to 30 mph, rivaling some small songbirds. Dragonflies' compound eyes also give them an incredible advantage as a hunter. With 30,000 separate lenses, the dragonfly has an almost 360-degree field of vision and can see color, movement, shape, and ultraviolet and polarized light. These characteristics help the dragonfly as it hunts for insects. In fact, one dragonfly can eat hundreds of mosquitoes in a day!

Scientists have identified five species of dragonflies who migrate from northern regions of North America to the southern United States, Mexico, and possibly Central America in response to seasonal changes. These five are also among the dragonflies you may see in Texas. Migrating dragonflies include the Common Green Darner, the Black Saddlebags, the Variegated Meadowhawk, the Wandering Glider, and the Spot-winged Glider.



Common Green Darner





Black Saddlebags



Variegated Meadowhawk



Spot-winged Glider

Wandering Glider

Species photos from Digital Dragonflies, Texas AgriLife Research, https://agrilife.org/dragonfly

Want to see more dragonflies in your backyard? Creating a dragonfly habitat is a great way to attract these beneficial insects. Successful dragonfly habitats include:

- freshwater flowing or standing, dependent on the species
- emergent, submerged, and floating plants for perching, roosting, and laying eggs
- shallow water margins
- upland vegetation for adult shelter
- shelter from wind, as well as sunny areas for perching

The Migratory Dragonfly Partnership, http://www.migratorydragonflypartnership.org/, has an online booklet with more information about creating and managing backyard habitats for dragonflies and damselflies. Observing dragonflies is one of the many gifts of nature we are fortunate to enjoy in North Central Texas. Protecting the natural habitats of these amazing creatures is one way we can contribute to their conservation. *Kara Lynn Greenfield - Palo Pinto County Master Gardener - Intern*

TEXAS A&M GRILIFE RESEARCH EXTENSION

Uniform Variety Forage Trials for District 3 Rolling Plains: 2018-2019

Location	Cooperator	Yield Limiting Issues	Planting Date	Fertilizer (Total lb N/A)	Water	Precip. Sep- May (Long- term average)	Seeding Rate
Rolling Plains	AgriLife Extension	None	10/2/2018	None ¹	I^2	21.8" (19.2")	90 lbs/ac
1			~				

¹Fertilizer was not applied due to the wet field condition

²Irrigation was not applied due to high precipitation

Forage was harvested one time on May 31, 2019

RESEARCH EXTENSION

2019 Uniform Forage Trial: District 3 Rolling Plains

Rank ^ª	Variety	Species	Source	DW lb/ac
1	TX14VT70526 ^b	Triticale	TAMU	18282
2	TX14VT70446 ^b	Triticale	TAMU	17587
3	TX16VT68295 ^b	Triticale	TAMU	15670
4	TX14VT70473 ^b	Triticale	TAMU	15365
5	SlickTrit II	Triticale	Watley Seed	15364
6	TX12V7415 ^b	HRWW	TAMU	14860
7	CP7869	HRWW	Croplan	14773
8	TX14VT70487 ^b	Triticale	TAMU	14439
9	TX14A001035 ^b	HRWW	TAMU	14301
10	TX14V70214 ^b	HRWW	TAMU	13388
11	WB4515	HRWW	Westbred	13024
12	CP7909	HRWW	Croplan	12985
13	TX12VT8222-4 ^b	Triticale	TAMU	12957
14	DH 140760	Barley	Oregro Seeds	12922
15	CP7010 (CPX79-10)	HRWW	Croplan	12251
16	DH 140791	Barley	Oregro Seeds	12045
17	WB4792	HRWW	Westbred	11423
18	TX14M7061 ^b	HRWW	TAMU	11340
19	TX11A001295 ^b	HRWW	TAMU	11048
20	WB4303	HRWW	Westbred	11046
21	TX14A001249 ^b	HRWW	TAMU	11036
22	TAM 204	HRWW	Watley Seed	10292
23	DH 140789	Barley	Oregro Seeds	10000
24	WB4699	HRWW	Westbred	9174
	Mean			13149
	CV			17.6
	Р			0.0005

^aVarieties ranked according to 2019 yield averages.

^bExperimental breeding line.

Highlighted values are statistically same as the highest value.

Evaluation Results from Beef Quality Assurance Program May 21, 2019 - Palo Pinto

Evaluations Completed 49				
How the program rated	Poor	Fair	Good	Excellent
	0%	0%	22%	78%
Potential Economic impact	\$1 to \$10/hd	\$11 to \$20/hd	over \$20/hd	none
	39%	37%	8%	4%
	•			
Wise use of checkoff dollars?	Yes	No		
	98%	2%		

	Probably Will		Probably	Definitely	Adopted
Intend to Adopt	Not	<u>Undecided</u>	Will	Will	<u>Already</u>
Plan to give all injections according to BQA principles	0%	0%	10%	43%	47%
Plan to implement BMPs	0%	2%	12%	47%	39%
Plan to develop preventative herd health plan	2%	2%	16%	45%	35%
Plan to adopt carcass disposal practices	0%	0%	8%	57%	35%

	Strongly				Strongly
Level of Understanding	Agree	Agree	Undecided	Disagree	Disagree
Impacts of genetics on beef quality	55%	45%	0%	0%	0%
Handling impact on quality	63%	37%	0%	0%	0%
Impact of market cow/bull handling	61%	37%	2%	0%	0%
Importance of observing pesticide restrictions	57%	39%	4%	0%	0%

Where do you turn for beef cattle info? (1= most important, 3 = least)							
	Avg. <u>1st</u> <u>2nd</u> <u>3rd</u>				Total		
Veterinarian	1.5	28	7	7	42		
Extension	2.0	5	15	6	26		
Others	2.2	3	8	7	18		
Feed Store	2.6	0	3	5	8		
Internet	2.3	5	9	12	26		
Print media	2.0	6	6	6	18		

What would you suggest to improve this training or the TBQP program?

- Enjoyed
- How to finish out top quality beef
- · For this program I learned a lot and would like to reserve any suggested improvements for future visits
- Very good program
- Very good program. These two doctors are good!
- Well done! More events as knowledge is power!
- Maybe a little bit more hands-on interaction seeing abscess, lesions, etc.
- It was good
- More often in our area at least bi-yearly (every 2 years)
- More cattle handling information
- Have more of these programs
- A mic for the vet