

HARRISON COUNTY AGRILIFE EXTENSION

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102 W. HOUSTON MARSHALL, TX

JUNE AG / NR NEWSLETTER

**TEXAS A&M
AGRILIFE
EXTENSION**

The members of Texas A&M AgriLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity, or any other classification protected by federal, state, or local law and will strive to achieve full and equal employment opportunity throughout Texas A&M AgriLife.

rained on hay

After mowing, poor weather and handling conditions can lower hay quality. Rain can cause leaf loss and can leach nutrients from plants during curing. Rain can leach out nutrients and increase dry matter loss from respiration, which is the process by which a plant uses oxygen. Nutrient losses depend on the amount, duration and timing of the rain in relation to cutting time.

Purdue University has conducted research on the amount of total digestible nutrients (TDN) and field dry matter lost from hay after a rain. The study found that 1 inch of rain reduced the TDN content of field-cured hay by 5 percentage points. Field dry matter losses from undried wind-rowed hay were 3.5% per inch of rain. In general, fewer nutrients are leached out during a quick 1-inch rain than during a slow, soaking 1-inch rain.

Rain-induced losses are much higher in drier hay than in hay that is fresh cut. Also, rain-soaked hay must often be re-raked, which increases leaf losses. Although conditioning can reduce hay drying time, rain causes greater nutrient losses for hay that has been conditioned or crushed.

Forage plants are living tissues that continue to respire when cut until the moisture content falls below 40%. If the drying conditions are poor (such as with high humidity, cloudy skies or low temperatures), the plant will use more of the readily digestible carbohydrates, sometimes up to 10 to 15% of the original dry matter.

Researchers at the Texas A&M AgriLife Research & Extension Center, Overton, TX studied the effects of drying on the crude protein (CP) content and TDN of Coastal bermudagrass hay. They found that the CP content dropped from 11.1% to 8.9% after 2 days of drying. In that same period, TDN dropped from 51.6% to 42%.

To reduce haymaking losses, producers should:

- Cut hay at the proper stage of maturity.
- Cure the hay as fast as possible.
- Minimize excess manipulation of the hay.
- Bale the hay promptly when it is dry.
- Store it according to bale type.

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Weed of the Week: Johnsongrass

Johnsongrass is a warm season perennial grass that is one of the most common and troublesome weeds in agriculture. It is commonly found on roadsides, pastures and hay fields. It grows erect from 3 to 6 feet. Johnsongrass spreads by seeds and rhizomes (underground stems). The seedhead is a large, open panicle often with a purplish tint. Johnsongrass leaves have a large white midrib and a smooth, glossy appearance. Stems are smooth with no hairs.

Select Herbicide Options:

Outrider (for bermudagrass pastures and hay meadows, bahiagrass can be injured)

Pastora (for bermudagrass pastures, will destroy bahiagrass)

Roundup (for bermudagrass pastures/hay meadows will destroy bahiagrass)

REMEMBER: THE LABEL IS THE LAW!

Always read the pesticide label before using.



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Texas A&M AgriLife Extension Service

Texas A&M University System

EXPLANATION OF FACTORS USED IN SLAUGHTER CATTLE YIELD AND QUALITY GRADING

Grades of slaughter cattle are intended to be directly related to the grade of the carcasses they produce. To accomplish this they are based on two factors: (1) quality or palatability indicating characteristics of the lean referred to as "quality grade" & (2) quantity or cutability based on the indicated carcass percent of trimmed boneless major retail cuts referred to as "yield grade".

Quality Grade: Slaughter cattle quality grades are based on palatability factors. Quality is evaluated primarily by finish, age & quality (marbling, maturity, color, firmness & texture of lean). Estimate to nearest 1/3 of grade (Prime or Choice), 1/2 grade (Select or Standard) & Utility.

Yield Grade: The yield grades for slaughter cattle (U.S. #1, U.S. #2, U.S. #3, U.S. #4, U.S. #5) are based on the same factors as used in the official yield grade standards for beef carcasses. Those factors are as follows:

- 1) Fat Thickness at the 12th Rib: One measurement over the ribeye at the 12th rib. Range from 0.1 to 1.0 inch.
- 2) %KPH: Kidney, pelvic and heart fat expressed as a percent of carcass weight. Range from 1% to 6%.
- 3) Carcass Weight: Live Weight X Dressing Percentage
- 4) Ribeye Area: Estimate in sq. inches at 12th rib. Average is 1.1 sq. inches per 100 pounds live weight.

USDA YIELD GRADE	PERCENT RETAIL CUTS	FACTORS AFFECTING CUTABILITY	CHANGE REQUIRED TO MAKE ONE YIELD GRADE CHANGE
1 = ≥52.4%		Fat over the ribeye	.4 inch
2 = 50.1% thru 52.3%		%KPH	5.0%
3 = 47.8% thru 50.0%		Ribeye area	3 inches sq.
4 = 45.5% thru 47.7%		Warm carcass weight	250 pounds
5 = ≤45.4%			

Dressing Percentage: Range from 57% to 67%. Mainly affected by the amount of fill; degree of finish; weight of hide, head and shanks and muscling.

Percent Cutout: percent retail cuts or carcass percent of boneless, closely trimmed retail cuts from the loin, rib, round and chuck. Range from 43% to 55%. Mainly influenced by percent trimmable fat. (Base: 1,000 lb. steer; .4 inch fat; 3.5% KPH; 11.0 square inch ribeye = 3.0 yield grade = 50% cutout.

Document Revised by D. B. Griffin and L. L. Boleman, August, 2004

GUIDE TO EVALUATION OF SLAUGHTER CATTLE

U.S. SLAUGHTER STEER GRADES

U.S. YIELD GRADES

U.S. QUALITY GRADES



Yield Grade 1



Prime



Yield Grade 2



Choice



Yield Grade 3



Select



Yield Grade 4



Standard



Yield Grade 5



Utility



USDA BEEF YIELD GRADE SHORT CUT METHOD

Best 1 2 3 4 5

Yield Grade 3.0 = 0.4" FT – 600 lb. CW – 11.0 sq. in. REA – 3.5% KPH

★ – Preliminary Yield Grade Starting Point

For every .1" increase in adjusted 12-13th rib fat thickness, PYG increases by .25

<u>12-13th Rib Fat</u>	<u>PYG</u>
0.00.....	2.00
0.10.....	2.25
0.20.....	2.50
0.30.....	2.75
0.40.....	3.00
0.50.....	3.25
0.60.....	3.50
0.70.....	3.75
0.80.....	4.00

Adjustment 1 – Carcass Weight

For every 100 lb. change from a 600 lb. carcass, adjust the PYG by ± .4

<u>Carcass Wt. (Live Wt.63%)</u>	<u>Adj. 1</u>
900 (1429)	+1.2
850 (1350)	+1.0
800 (1270)	+0.8
750 (1190)	+0.6
700 (1111)	+0.4
650 (1031)	+0.2
600 (952)	0.0
550 (873)	-0.2
500 (793)	-0.4

Adjustment 2 – Ribeye Area

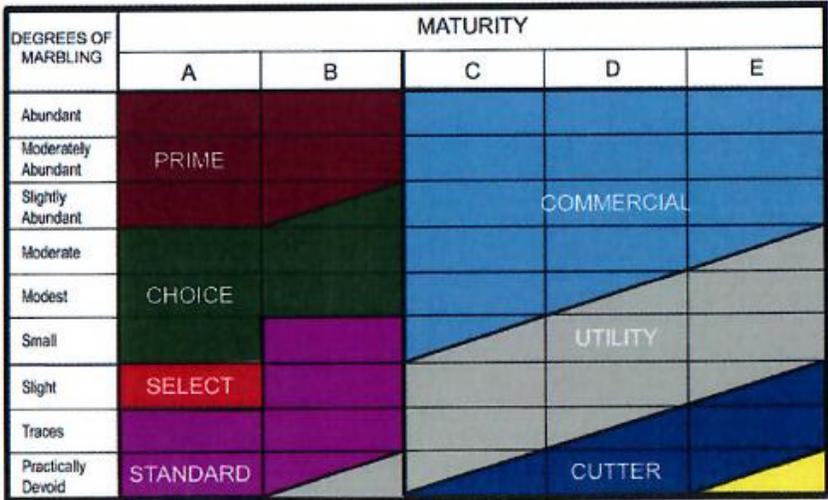
For every 1 square inch from an 11.0 sq. in. ribeye area, adjust the PYG by ± .33

<u>Ribeye Area (in²)</u>	<u>Adj. 2</u>
14.0.....	-.99
13.5.....	-.82
13.0.....	-.66
12.5.....	-.49
12.0.....	-.33
11.5.....	-.16
11.0.....	0.00
10.5.....	+.16
10.0.....	+.33

Adjustment 3 – %Kidney, Pelvic & Heart Fat

For every 1.0% change in %KPH from 3.5%, adjust the PYG by ± .2

<u>%KPH</u>	<u>Adj. 3</u>
1.0.....	-.50
1.5.....	-.40
2.0.....	-.30
2.5.....	-.20
3.0.....	-.10
3.5.....	0.00
4.0.....	+.10
4.5.....	+.20
5.0.....	+.30





Worker Honey Bees have different jobs according to their age



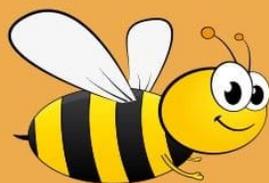
1-2 days old: have the job to clean the cells, and they start with the one they were born in. They also keep the brood warm



3-5 days old: their job is to feed older larvae



6-11 days old: they have the responsibility to feed the youngest larvae



12-17 days old: they are producing wax, carrying food, building combs and have undertaker duties



18-21 days old: they are protecting the hive entrance and have guard duty



From 22 days to the end of their life (at around 40-45 days): they fly from the hive and collect pollen, nectar, water etc.

Bulbs

Culture and Maintenance

Originally published in the Arizona Master Gardener Manual, produced by the Cooperative Extension, College of Agriculture, The University of Arizona, 1998.

Edited and reformatted by Texas Cooperative Extension, Harris County, September 2007

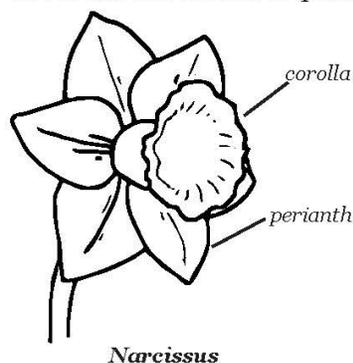
The term bulb is loosely used to include corms, tubers, tuberous roots, and rhizomes, as well as true bulbs. This publication will refer to all of the above as bulbs.

A true **bulb** is a complete or nearly complete miniature of a plant encased in fleshy modified leaves called scales which contain reserves of food. **Corms** are the base of a stem that becomes swollen and solid with nutrients. It has no fleshy scales. The **tuber**, which is an underground stem that stores food, differs from the true bulb or corm in that it has no covering of dry leaves and no basal plant from which the roots grow. Usually short, fat and rounded, it has a knobby surface with growth buds, or eyes, from which the shoots of the new plant emerge. Tuberous roots are the only ones from this group that are real roots; their food supply is kept in root tissue, not in stem or

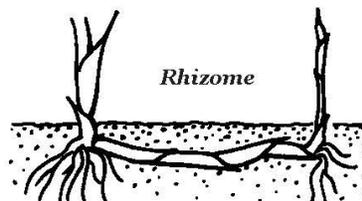
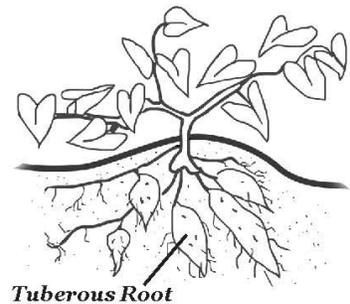
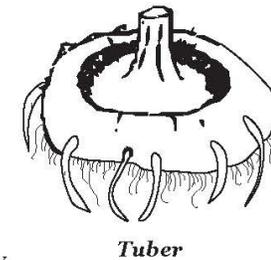
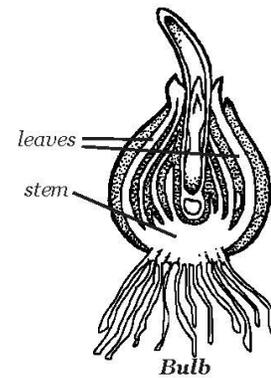
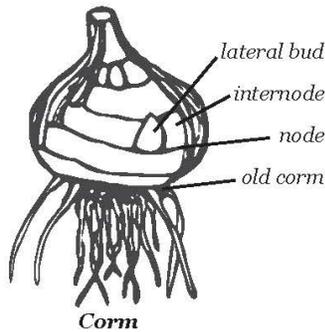
leaf tissue as in other bulbs. **Rhizomes**, which are sometimes called rootstocks, are thickened stems that grow horizontally, weaving their way along or below the surface of the soil and at intervals sending stems above ground. Many vegetables are propagated from or produce edible organs of these types (e.g., tuber, Irish potato; tuberous root, sweet potato; rhizome, Jerusalem artichoke; bulb, onion).

Bulbs are broadly grouped into spring-flowering (January-May) and summer-flowering (June-September). Spring bulbs provide early color before most annuals and perennials. One of the most popular spring bulbs is tulip. **Tulips** are sold by type and variety and come in all colors except blue. Some of the most common types are: Cottage: late-blooming; Darwin: tallest; Lily-flowered: petals recurve—bell-shaped; Parrot: twisted, ruffled petals; Double: two or more rows of petals. Tulips require vernalization (chilling) of the bulb in order to produce flowers. Harris County does not get cold enough for tulips to naturalize; when grown in this area, they are treated as an annual. Alternatively, they may be forced in containers for seasonal color. Tulip bulbs must be kept under refrigeration for at least eight weeks before being planted.

Daffodils and jonquils (common names for the genus *Narcissus*) are classed by length of corolla in relation to perianth segments. They come in the colors of white, yellow, red, and peach, but not blue. Several varieties will naturalize in Houston.



for naturalizing and large ones to stand out as specimen plants. Keep cool (60 to 65° F.) until planting.



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Hyacinths produce a large single spike of many small, fragrant flowers, and come in a complete color range. **Crocuses** are usually grown for early bloom (even when snow is still on the ground) in colder climates. Most crocuses are difficult to grow in this area. Like tulips, they can be treated as an annual in Houston. There are no red crocuses.

Selecting high quality spring bulbs is very important because the flower bud has already developed before the bulb is sold. Size is also important; look for plump, firm bulbs. Select on a basis of color and size for intended purposes; for example, small ones

The summer-flowering bulbs include amaryllis, tuberous begonia, caladium, daylily, dahlia, gladiolus, lily, and spider lily.

Culture and maintenance

Storage. If bulbs are bought before planting time, keep them in a cool, dry place. A temperature of 60 to 65° F. is cool enough to prevent bulbs from drying out until time for planting. Temperatures higher than 70° F. will damage the flower inside spring-flowering bulbs. Rhizomes, tubers, and tuberous roots are more easily desiccated than bulbs and corms, and should be stored in peat, perlite, or vermiculite.

Site Selection. In selecting a site for planting, consider light, temperature, soil texture, and function. Most bulbs need full sun. Select a planting site that will provide at least 5 to 6 hours of direct sunlight a day. Bulbs left in the ground year after year should have 8 to 10 hours of daily sunlight for good flowering. Bulbs planted in a southern exposure near a building or wall will bloom earlier than bulbs planted in a northern exposure. Adequate drainage is an important consideration. Most bulbs and bulb-like plants will not tolerate poor drainage, and rot easily if planted in wet areas. Function must also be kept in mind. If bulbs are being used to naturalize an area, toss the bulbs then plant them where they fall to create a scattered effect.

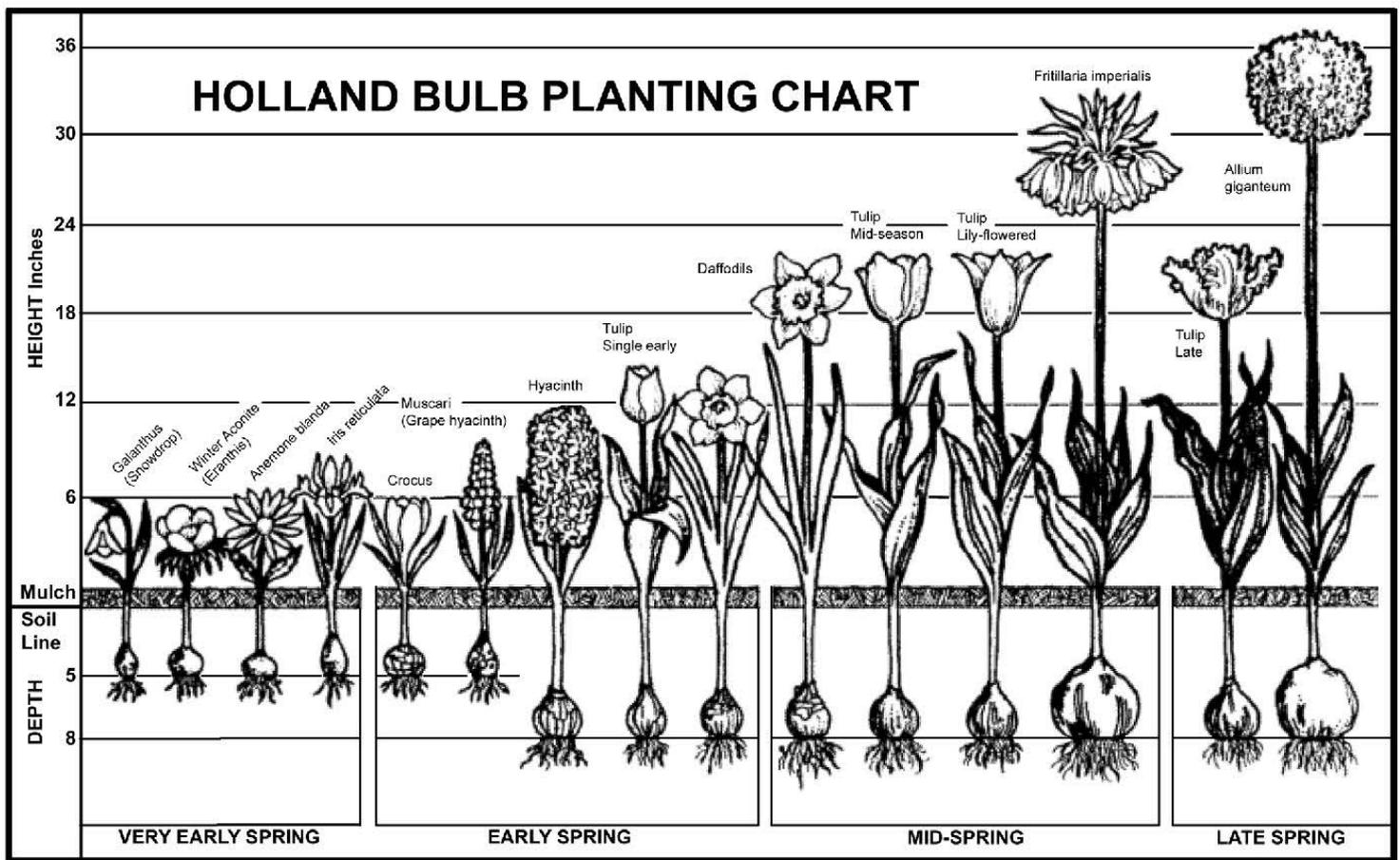
Site Preparation. Good drainage is the most important single factor for successful bulb growing. Bulb beds should be dug when the soil is fairly dry. Wet soil packs tightly and retards plant growth. Spade the soil 8 to 12 inches deep. As you dig, remove large debris and building trash, but turn under all leaves, grass, stems, roots, and anything else that will decay. Add fertilizer and organic matter to the soil. Use 1 pound of 5-10-10 fertilizer for a 5 by 10 foot area, or a small handful for a cluster of bulbs. Place a 1 to 2 inch layer of organic matter over the bed. Thoroughly mix the fertilizer and organic matter with the soil. For individual planting holes, loosen the soil below the depth the bulb is to be planted. Add fertilizer and cover with a layer of soil (bulbs should not contact fertilizers directly). Set bulb upright in planting hole and cover with amended soil. In wet, hot summers, organic fertilizer can retard blooming and promote disease, especially among gladiolus not dormant then.

Time of Planting. Hardy, spring-flowering bulbs are planted in late summer or early fall. Hardy, fall-flowering bulbs, such as colchicum, are planted in August. Tender, summer-flowering bulbs are planted in the spring after danger of frost. Lilies are best planted in late fall.

Depth of Planting. It is best to check correct planting depth for each bulb with a successful local grower or other good local source. Bulb catalog and reference book recommendations for planting may be either too shallow or too deep depending on soil condition. As a general rule of thumb, bulbs should be planted 2 to 3 times the diameter of the bulb in depth.

Watering. Normal rainfall usually provides enough moisture for bulbs. But during dry weather, water plants at weekly intervals, soaking the ground thoroughly. Be especially careful not to neglect bulbs after blooming.

Mulching. In the winter, mulch bulbs 2 to 4 inches deep with organic material such as straw, pine bark, hay, or ground leaves. Do not use large leaves, as they may mat too tightly on the ground. Apply mulch after cold weather arrives. You may damage the bulbs if you mulch while soil temperature is still high. Remove mulch as soon as danger of severe freezing has passed, in early spring. If mulch is left on the ground after new growth starts, tops of new shoots will be pale green or colorless, and new stems and foliage may be broken.



Produced by Netherlands Flower Bulb Institute

Fertilizing. After plants bloom, fertilize them lightly with 5-10-10 fertilizer. Use no more than 1 pound for a 5 by 10 foot bed. Avoid high-nitrogen fertilizer. Be sure to keep fertilizer off the leaves and away from roots; it will burn them. In addition to 5-10-10 fertilizer, you can use bonemeal as an extra source of phosphorus.

Staking. Some tall, heavy-flowered bulbs may require staking. Stake plants when they are emerging, but be careful not to damage the bulb with the stake. For flowers that face one direction, use the stake to orient the face to the front of the bed.

Deadheading. When flowers fade, cut them off to prevent seed formation. Seeds take stored food from the bulbs.

Moving. If leaving bulbs in place for bloom next year, do not cut the leaves after flowering until they start to wither. Green leaves produce food for plant growth next year. After leaves turn yellow, cut and destroy the stems and foliage of the plants. Dead foliage left on the ground may carry disease to new growth the next year. If moving bulbs from one place to another, or if a planting has become crowded and ceased blooming, move only after the foliage has faded. Bulbs dug and moved before foliage fades are useless.

Digging and Storing. Many summer-flowering bulbs should be dug and stored, as they are tender. This is done when the leaves on the plants turn yellow. Use a spading fork to lift the bulbs from the ground. Wash off any soil that clings to the bulbs, except those that are stored in pots or with the soil around them. Spread the washed bulbs in a shaded place to dry. When dry, store them away from sunlight in a cool, dry basement, cellar, garage, or shed at 60 to 65° F. Avoid temperatures below 50 or above 70° F. Be sure that air circulates around stored bulbs. Never store bulbs more than two or three layers deep, as they generate heat and cause decay. Leave the soil on achimenes, begonia, canna, caladium, dahlia, and ismene bulbs. Store these bulbs in clumps on a slightly moistened layer of peat moss or sawdust in a cool place. Rinse, clean, and separate them just before planting.

References

Flowering Bulbs: Culture and Maintenance by Diane Relf and Elizabeth Ball, revised by Joyce Latimer, Virginia Cooperative Extension. Publication Number 426-201, revised 2004.



Each year Texas 4-H
impacts more than
500,000 students.

by participating in 4-H, these
students are statistically

5x more likely to graduate
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computer-related fields.

To sign your child up for 4-H go to
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CHIGGER SEASON

Chiggers are my personal worst nightmare. They are tiny mites, barely visible to the eye, that live on the soil surface and, in their larval stage, are parasites on humans and other vertebrate animals. Chigger bites itch terribly for 1-2 days, then slowly shrink to mildly itchy red marks that take 1 or 2 weeks to disappear. The only good thing I can say about chiggers is that, as far as we know, they don't carry disease.

Bites typically occur in the most sensitive of places, especially around areas of tight clothing (belt line, sock line) and thin, sensitive skin (you can imagine where).

So why do chiggers seem worse this year? If I had to guess, I'd say it's been our high humidity and above average temperatures the past month. Chiggers love hot and humid.

The most common places to encounter chiggers is in bramble patches, woods and fields with long grass. But in a year like this, chiggers can be a problem even in manicured lawns. Chiggers are often said to prefer shaded areas, but workers in our blazing-sun-drenched turfgrass plots at the Texas A&M AgriLife Center in Dallas have annual problems with chiggers beginning around late May and early June.

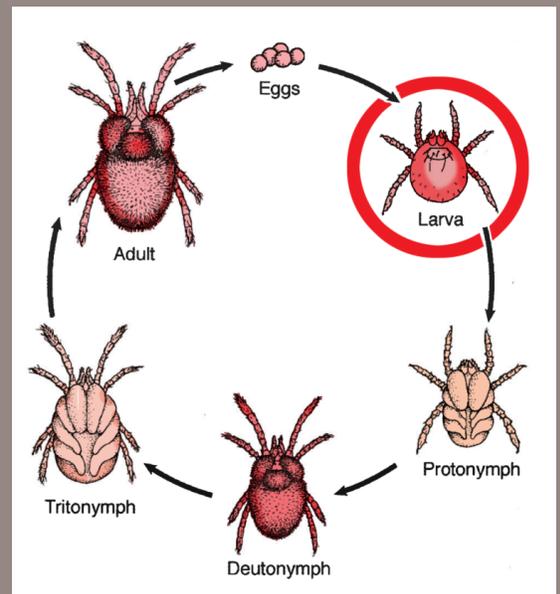
Your first protection against chiggers is a good repellent. DEET, our most popular mosquito repellent provides significant protection against chiggers. Dusting sulfur is a cheap and convenient alternative for some. Traditionally old-time Texans make it a habit to carry around an old sock filled with sulfur (in the pickup truck of course). When getting out of the truck they swing the sock against their shoes and lower legs to dust themselves before they set off to ride, roundup, plant, fix bob wire, or whatever else good Texans do these days.

Here are my three tips for self protection in chigger country:

- Use a good repellent, applying to your shoes, socks and pants legs before stepping into chigger danger.
- Tuck your pant legs into your socks to make it harder for chiggers to get in your pants and find the tender places.
- Scrub yourself well in the shower after you think you might have been exposed. Chiggers typically take several hours to settle down and begin feeding. If you can shower before they begin chowing down, you can reduce the number and severity of bites.

If you have chiggers in your lawn or backyard, consider using a liquid insecticide spray like bifenthrin. These sprays can significantly reduce chiggers. Before spraying, mow your lawn. This reduces humidity on that critical soil surface and makes it easier for sprays to contact the chiggers.

If your lawn is full of dandelions, clover or other flowers, make sure you spray for chiggers in the evening to avoid spraying pollinators, like honey bees, while they are foraging. Follow all label directions to avoid harm to good insects.



Mike Merchant
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September 11, 2021



Downtown Marshall, TX

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all of our upcoming events!

Texas A&M AgriLife Extension

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