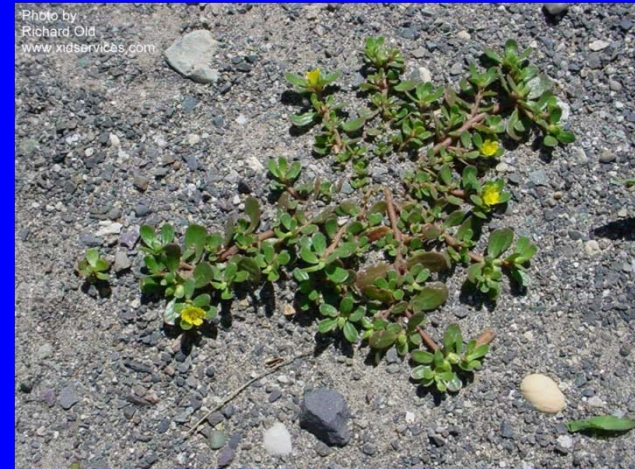


Weeds of Importance for Home Gardens in the Texas Panhandle and Beyond

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Common purslane (*Portulaca oleracea*)

- Weedy summer annual
- Edible, but with a sweet acidlike flavor
- Produces abundant seed, so a minor issue one year can become serious next year
- Known to harbor some plant pathogens
- Can produce a dense mat.
- Management:
 - 1)Prevention: manage before it establishes
 - 2)Clean equipment (ie. mowers)
 - 3)Cultivate/hoe when still a seedling
 - 4)Although the purslane sawfly feeds on this weed, it is not aggressive enough to be used alone
 - 5) Soil solarization or mulching can suppress this weed
 - 6)Chemical control with herbicides (usually post-emergence) not normally warranted but are available
 - 7)Healthy growing turfgrass normally outcompetes weed



Nutsedge (*Cyperus* spp.)

- Common in wet soils due to poor drainage, high watering frequency, or leaks in hoses
- Although not a grass, some call it “nutgrass”
- Yellow nutsedge (*C. esculentus*) has both light brown flowers (picture, top right) and seed while purple nutsedge has reddish brown flowers with dark seed
- Produce tubers (picture, bottom right) and these, not seed, are considered the source for new plants
- Management:
 - 1)Prevention: remove before it establishes 5-6 leaves and produces tubers, eliminate wet soil conditions, use certified mulches, shade accordingly
 - 2)Some herbicides are available although label needs to be followed to prevent damage to desired plants.
 - 3)Landscape propylene fabrics may suppress some emergence but removal of any emerging seedling is key.



Silverleaf Nightshade (*Solanum elaeagnofolium*)

- Related to potatoes and tomatoes
- Deep-rooted broadleaf that competes for water
- Other nightshades include black nightshade, hairy nightshade, and American nightshade
- Can be resistant to herbicides used in tomato plots
- Greenish yellow to brownish berries give rise to brown colored tiny seeds.
- Management:
 - 1)Prevention: remove before it establishes
 - 2)Some herbicides are available although label needs to be followed to prevent damage to solanaceous crops.
 - 3)Crop rotation with plants that can tolerate herbicides against nightshades can help suppress these weeds.
 - 4)Since germination of seed is normally in top 2 inches of soil, deep plowing can reduce seed emergence.



Russian thistle (*Salsola* spp.)

- Also known as “tumbleweed”
- Adapted to areas with summer droughts
- Leaves are fleshy and young plants are edible, especially for livestock
- Once mature, it is oval to round and can have a diameter of up to 6 feet
- Depletes soil moisture, allows for insects/some diseases to establish, and can produce allergies
- Management:
 - 1) Prevention: remove before it produces seed.
 - 2) Well managed and irrigated gardens can suppress this weed.
 - 3) Herbicides are normally unwarranted for home use.
 - 4) In land not being used, do not disc or loosen soil as it promotes Russian thistle establishment.
 - 5) Burning, although effective, should not be an option.



Field Bindweed (*Convolvulus arvensis*)

- In some states, it is the worst weed issue
- Also known as perennial morningglory
- Flowers are trumpet shaped and white to pink
- It can utilize objects and other plants for climbing.
- It is very competitive as it has a vast root system
- Management:
 - 1)Prevention: use clean seed, remove suspicious seedlings, and do not allow for seed production
 - 2)Shade, when not affecting crop production, can suppress bindweed
 - 3)Soil cultivation can control up to 3-4 week-old seedlings. After that, buds are already formed
 - 4)Black polyethylene mulch is effective as long as sunlight does not go through
 - 5)Herbicides can suppress but more difficult to eradicate



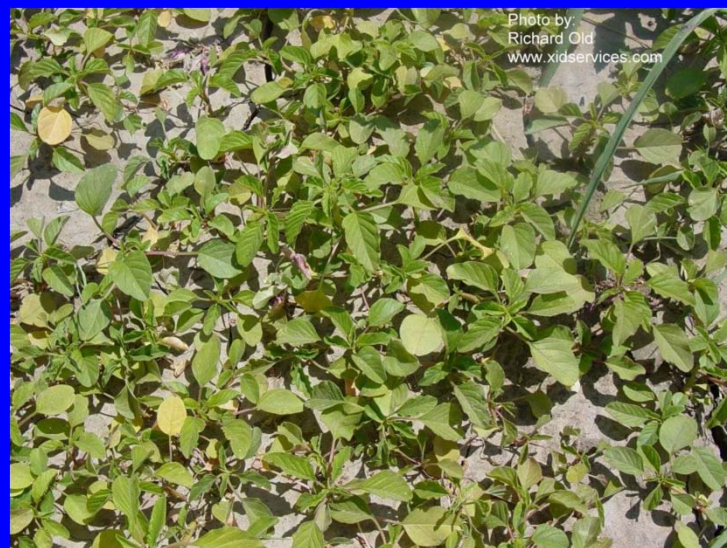
Puncturevine (*Tribulus terrestris*)

- Also known as “Goathead”
- Summer annual that can tolerate hot and dry conditions that other plants cannot
- It has spiky seedpods (picture, top left).
- Flowering can take as little as three (3) weeks
- Seeds can survive for up to five (5) years
- Has deep taproot and competes for water
- Management:
 - 1)Prevention: Since each plant can produce up to 5,000 seed per year, removing plants before seeding is key
 - 2)Collect burrs that drop in soil by raking or sweeping
 - 3)Although some weevils have proven effective at biocontrol, they decline when plant numbers decline.
 - 4)Plant removal by hoeing or hand works for gardens
 - 5)Only under heavy infestation are herbicides warranted



Pigweed (*Amaranthus spp.*)

- Many species exist. One of the most common is Palmer amaranth, also known as Careless weed or Palmer pigweed (pictured, on right) and red root pigweed.
- Annual plants that depend on seed overwintering
- Growth is upward and perpendicular to ground
- Resistance/tolerance to herbicides has been reported
- Management:
 - 1) Prevention: Plant certified, weed-free seed
 - 2) Plowing, disking, mowing, cultivating, hoeing, and manual pulling of weeds should be done prior to seed set
 - 3) Fall or Spring tillage that buries seed can reduce or suppress seedling emergence.
 - Herbicide application, if necessary, needs to go hand-in-hand with cultural and mechanical management practices for weed management.



Johnsongrass (*Sorghum halepense*)

- Top ten weed worldwide
- Very competitive with crops
- Seedling can resemble a young corn seedling
- If seedling removed from soil, seed is still attached and is reddish-brown to almost black.
- Related to sorghum, can be as tall as 7 feet.
- Management
 - 1) Prevention: carry out multiple strategies as soon as weed is observed and do not wait until it is established
 - 2) Fall tillage will allow for rhizomes to be exposed on soil surface and potentially killed over the winter.
 - 3) In a post-harvest scenario, herbicides could be applied no less than ten days before the first frost.
 - 4) In home gardens, planting sweet corn in raised beds or in straight rows with a known spacing will allow to determine that any corn-looking seedling out of place is most likely johnsongrass.

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