

# Field Ragweed

---

“*Ambrosia*” is Latin for “the food or drink of the gods.” Now, it just so happens that western ragweed’s name is *Ambrosia cumanensis*, so indeed quail must be nobility! Seeds of western ragweed are the winter staple for bobwhites across much of the Rolling Plains. Annual cousins like giant ragweed and common ragweed are also good seed producers. But the group also has its nary-the-wells, and the species du jour is one.

Field ragweed (*Ambrosia confertiflora*), also called weakleaf-burr ragweed, is a great imposter. Its leaves look quite a lot like those of western ragweed. So much so, that many range-sages will likely misidentify it. But as far as I know its seeds (small burs) are useless to bobwhites.

I’m alarmed at just how prolific field ragweed has become on the Rolling Plains Quail Research Ranch, seemingly all of a sudden. (Perhaps I’ve been oblivious to the plant in the past, and have just become more aware of its presence, *caveat emptor*.)

I’m intrigued by the ragweed conundrum here at RPQRR. Much, perhaps most of the ragweeds are field, not western. And I’ll be danged if I can discern a pattern as to which species occurs where on the landscape. Do these two species draw a metaphorical line in the sand?

What are the methods by which they lay claim to one another’s “territory.” (The word “territory” is usually reserved to animals, and refers to that portion of an individual’s home range that is actively defended against others of the same species.)

But plants do wage war between/among species. They may struggle via competition for light, nutrients, or moisture. And sometimes they wage chemical warfare, via a phenomenon called allelopathy.

Allelopathy is when plants secrete a biochemical which keeps other plants from growing near them. These biochemical materials are called allelochemicals. Allelochemicals inhibit the germination (or growth) of other plants around them. The allelochemicals can be found in leaves, roots, flowers, fruits or stems and in the surrounding soil. By secreting the allelochemicals into the soil the plant gets rid of its competition and controls its environment.

Plants found on Texas rangelands known to be allelopathic include saltcedar, juniper, and walnut. One of the classical ecological sagas relative to allelopathy is plant succession on old fields in the tallgrass prairie regions of Oklahoma and Kansas. On such “go back ground” (abandoned cropland), the pioneer plant is annual sunflower. Sunflowers release allelochemicals which suppress



Western ragweed



Field ragweed

some other forbs, and even its own species. This plant community dominates the site for a couple of years, but soon succeeds to oldfield threeawn (*Aristida oligantha*; “wiregrass”) which the sunflower allelochemicals do not inhibit. Fifteen to twenty years later, little bluestem becomes established. After another period of years, other tallgrasses (e.g., big bluestem, switchgrass) become established.

I wonder if a similar successional conspiracy isn’t being played out on the Abilene Clay Loams at the RPQRR. The dominant plant community here seems to be field ragweed, prickly pear, and Texas wintergrass. Are one or more of these plant species producing allelochemicals, or is it just a matter of their being stern competitors? Students of botany welcomed to study the phenomena.

While I’ve been pleased with some aspects of our summer burning, and patch-burn-grazing, I am dismayed when I see the treatments monopolized by field ragweed. Will western ragweed, and other forbs, be able to arm-wrestle their place back over time?

I’m also curious as to whether these cousins hybridize. Some plants we look at are clearly western ragweed, and others are clearly field ragweed, based on their leaf structure. But some show leaves intermediate between the two.

This is likely more than you’d ever want to know about *Ambrosia confertiflora*, unless you are a student of quail. From that perspective, pertinent directives mandate us to (a) know our plants, and (b) know how to manipulate them.



Photo caption: Leaves of western ragweed (left) are less dissected (“frilly”) than those of its nin-compoop cousin “field ragweed” (right).