

THE IMMINENT EXPLOSION OF STINKNET

(*ONCOSIPHON PILULIFERUM*)
IN CENTRAL AND SOUTHERN ARIZONA

Southwest Vegetative Management Association Meeting
Flagstaff
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THE BEAUTIFUL BEAST



Stinknet also known as Globe Chamomile
Oncosiphon piluliferum

DISTINCT “CARROT LIKE” **STINKY** LEAVES



Plants emerge continuously from November to April

DISTINCTIVE ROUND FLOWERS APPEARING IN MARCH



STINKNET: A FOREIGNER

- **Native to South Africa**
- **As of January 2020 classified as an Arizona Noxious Weed**

GROWTH

- **A winter annual**
- **Germination, growth, and seed dispersal favored by wet years**
- **Staggered germination from November thru April**
- **Flowering is triggered by lengthening days following the winter equinox– peak flower in mid March**
- **Seed ripening and dispersal starts in April and continues to late May in wet years**

HARM TO HUMANS

- **For people with sensitive skin, skin rashes and burns can occur when handling vegetation**
- **For asthmatics, severe wheezing from even walking through fields**
- **Smoke from burning stinkinet can cause eye irritation and breathing problems**
- **Not even cattle or goats will eat it !**

THE GROWTH HABIT UNDERLIES THE CONTROL CHALLENGE

- *Staggered germination from November thru April*
- Flowering is triggered by lengthening days following the winter equinox– peak flower in early March
- Seed ripening and dispersion starts in
- Seed dispersion continues to late May



THE GROWTH HABIT UNDERLIES THE CONTROL CHALLENGE

- *Staggered germination from November thru April*
- Flowering is triggered following the winter equinox– peak
- Seed ripening and
- Seed dispersion over years



CONTROLS

Control knowledge is still incomplete but we do know :

- **Manual removal is only effective on initial infestations**
- **Cattle and even goats do not eat stinknet**
- **Simazine at 16az/acre or Milestone at 4 ounces/acre is effective pre emergence but with strict label compliance for both herbicides.**
- **Glyphosate with MSO or Hasten surfactant is effective post emergence up to flowering. Glyphosate alone is not effective.**
- **After flowering, half rate diquat should be added**
- **Herbicide testing is ongoing in winter 2019-2020 sponsored by the Southwest Vegetation Management Association**

WILDLAND FIRE DANGER



Appears to have trouble competing with natural vegetation



But fills in open areas and extends fire faster to bushes and trees accelerating spread.

THE PHOENIX METRO AREA

- **In Arizona first reported in Maricopa County in 1990s**
- **By 2005 it had infested the Ben Avery Az Game and Fish shooting facility, Cave Creek USFS Ranger station, and parts of the Tonto National Forest**
- **By 2015 it had heavily infested lower I-17**
- **With wet years 2016 and 2018 there were explosions throughout the Phoenix Metro area and I 10 to Casa Grande**

THE SPREAD OF STINKNET IN ARIZONA

- **The infestation of the Ben Avery Az Game and Fish facility provided a perfect storm for infestation in Maricopa County**
- **It was allowed to bulk up unimpeded for over 15 years**
- **Seed ripening coincides with the annual Arizona Outdoors Exposition in late March-Early April**
- **Seed has been dispersed by thousands of visitors over many years and continues today**

**THE BEN AVERY FACILITY IS THE
STINKNET GROUND ZERO
FOR PHOENIX AND ARIZONA**



BEN AVERY EARLY EMERGENCE BY NOVEMBER 2018



BEN AVERY STINKNET IN FLOWER BY MARCH 2019



- > SEEDS DROP FROM VEHICLES WHEN THEY DECELERATE AND ACCELERATE
- > I 17 ON AND OFF-RAMPS RAMP CAREFREE TO -NEW RIVER BECOME RIFE WITH STINKNET



FROM ROADWAYS STINKNET SPREADS INTO THE OPEN DESERT



CENTRAL PHOENIX IN FLOWER BY MARCH 2019



WHAT WENT WRONG IN PHOENIX ?

- **No one knew about Stinknet until** it was way too late !
- No one knew how to control it until 2019---and we still have a lot to learn !

STINKNET IN TUCSON

- 2012-2014 ADOT equipment yard for I-10 widening was located on 20 acres at I 10/Prince and became heavily infested with stinknet
- 2015 collected and vouchered by AnaLilia Reina at the west end of Prince Road (the Tucson stinknet “ground zero”)
- 2015-2019 gradually bulked up at “ground zero”
- 2018-2019 spread across the road to the embankment of the county bike loop and south to the UA farm
- Tucson's epicenter at I-10/Prince were contract sprayed in February 2020

THE TUCSON STINKNET GROUND ZERO



THE 2019 INFESTATION OF THE PIMA COUNTY BIKE LOOP EMBANKMENT



2019 SPORADIC OCCURRENCES ALL OVER TUCSON
BELOW IS A ROGUE PLANT AT TANGERINE AND LACHOLLA



**OUR CALIFORNIA NEIGHBORS HAVE
THEIR OWN STINKNET PROBLEMS**
ESPECIALLY SAN DIEGO AND RIVERSIDE COUNTIES



CONCLUSION

- “The cat is out of the bag” in Maricopa County and control will be challenging
- Control measures will require timely applications of both pre emerge and post emerge herbicides
- Education must be targeted to both applicators and the public

QUESTIONS ??



Contact aznps.stinknet@gmail.com for questions and comments