**Extension Agents and County/City Weed Officers
Palmer Amaranth Protocol 2021**

1. Landowner contacts the county weed officer or county Extension agent (the Extension agent or weed officer will contact the other to be sure both the weed officer and Extension agent are involved.
2. The weed officer and/or Extension agent will:
	1. Gather images and mark the GPS Coordinates where plant was found. Plant(s) should remain in the field rather than being pulled. The weed officer and Extension agent will work together to provide information to an NDSU specialist(s) for plant identification.
	2. Contact an area or state Extension specialist closest to them to help with identification. Images should first be sent to a specialist to help identify the plant in question. If necessary, the specialist may visit the field.
	3. Notify NDDA prior to submitting a sample to the lab for genetic testing. NDDA requires a genetic test to confirm the plant is Palmer. Once Palmer has been confirmed in your county, NDDA does not require lab confirmation for other suspect plants. NDDA will pay for shipping and testing for the first confirmed ID but will not pay for additional tests. (See reverse for genetic testing information),
	4. E-mail the lab report to NDDA whether positive or negative. If the plant is confirmed to be Palmer, also e-mail the GPS coordinates to NDDA **(coordinates and landowners and/or producers shall remain confidential and should not be shared outside of this group).**
	5. Inform landowner if the suspect weed is or is not Palmer.
	6. Notify Brian Jenks or Joe Ikley so they can keep track of where Palmer has been identified in the state.
3. NDDA notifies the State Seed Department if contaminated seed is the likely source of Palmer.
4. NDDA will make the official announcement via press release, social media, and pertinent listserv**.**  Suspect cases should not be shared with public or press. Confirmed cases should not be shared with public or press until the NDDA press release has been published.
5. The county weed officer is the local regulator, and if necessary, shall investigate to determine how widespread the infestation is, probable pathway, whether it has spread, etc. The NDDA shall assist the county weed officer, where possible, in the investigation.
6. NDSU specialist(s), NDSU Extension Agent, county weed officer, and NDDA will work with the landowner to develop an action plan based upon ‘Best Management Practices’. The NDSU specialist will take the lead role in action plan development. It is up the landowner to follow action plan. If no control action is undertaken, then county weed officer/county weed board to decide upon enforcement action.
7. NDSU Extension and the county weed officer will follow up with the landowner as warranted, but at a minimum on a yearly basis.
8. The county weed officer should keep records and maps to continue follow up with the landowner and survey the field for a period of 3-5 years after the initial finding to verify no additional Palmer is found. If more plants are found, follow ups should continue. NDDA will serve as a repository for the records and maps. The infestation site can be considered an ongoing investigation, whereby landowner and site location information are confidential and may not be shared with the public until investigation is considered closed.

**N****DSU specialists for ID and action plans include:**

**Acronym Guide**

NDSU: North Dakota State University

NDDA: North Dakota Department of Agriculture

Palmer: Palmer amaranth

Brian Jenks, Minot Joe Ikley, Fargo
Brian.jenks@ndsu.edu Joseph.ikley@ndsu.edu

(701) 857-7677 (701) 238-6065

**Contact Links:**

* County Extension agents: [https://www.ag.ndsu.edu/Extension/directory/counties](https://www.ag.ndsu.edu/extension/directory/counties)
* County weed officers: <http://www.ndweeds.com/wp-content/uploads/2019/05/Weed-Board-Directory-public_5-7-19.pdf>
* North Dakota Department of Agriculture: [www.nd.gov/ndda/pa](http://www.nd.gov/ndda/pa) (Richard Weisz, 701-328-2250, raweisz@nd.gov) or (Charles Elhard, 701-220-0485, celhard@nd.gov)

**Genetic Testing**

* Plants should first be identified in the field and/or with pictures to reduce the unnecessary spread of Palmer plants and/or seed. NDDA requires genetic testing if Palmer has not been identified in your county previously.
* The NDDA will pay for the lab fees and shipping expense for the first positive ID in a county. Contact the NDDA for a shipping label before sending suspect sample. Once Palmerhas been identified in a county, the NDDA will not pay for additional testing. County weed boards may use their targeted assistance grant to pay for any lab results if funding is available.
* Costs for subsequent samples from counties where Palmeris confirmed will be paid by the county or landowner. TAG funds may be used for Palmersamples going to the lab.
* National Agricultural Genotyping Center (Fargo, ND): <https://www.genotypingcenter.com/services/testing/>
* See complete instructions for Palmer sampling and shipment: <https://www.genotypingcenter.com/palmer-amaranth-testing/>
	+ For large plants, place 2-3 leaves from a single plant into an envelope or paper bag.
	+ For small plants or seedlings (less than 3 inches), send the entire plant, removing soil and moisture prior to placing it in the bag.
	+ If the sample cannot be sent the same day, it should be kept at room temperature. Samples should be stored for no more than 1 to 2 days and PREFERABLY SHIPPED OVERNIGHT to ensure samples arrive in good condition. Degraded samples cannot be tested.
	+ Label envelope or bag using the same sample specimen ID used on submission form
	+ All samples must be sent with a sample submission form: <https://www.genotypingcenter.com/wp-content/uploads/2019/05/Submission-Form-General-v3.0-1.pdf>
		- Ship to: National Agricultural Genotyping Center, 1605 Albrecht Blvd North, Fargo, ND 58102
		- $75 per individual plant. The goal is to return results in 7 days or less. Results will be returned and identified as waterhemp, Palmer or “monoecious” pigweed (cannot distinguish between the different monoecious pigweeds [redroot vs. Powell vs. smooth pigweed]).
	+ Use paper bag for samples – not plastic. Be aware that plant juices from plants touching each other can contaminate the sample – keep plants separate if you are sending multiple samples.
* NDDA may issue a press release on the first confirmed find in a new county. County is the most specific location for any reference of Palmer that will be given.