



Cactus Moth Detection & Monitoring Network



Pricklypear Data Form Variable Definitions

Pricklypear Data Form

Pricklypear in the context of this form refers to pad-forming *Opuntia* spp. belonging to the subgenus *Platyopuntia*, which are hosts for the cactus moth (*Cactoblastis cactorum*). Report all observations. When a Pricklypear Data Form is submitted into the database system, a Pricklypear Site ID is assigned. That ID will be used to represent that report in the system and is to be used to associate any cactus specimens taken with this report. This ID will also be used to associate a Moth Visual Observation and a Trap Observation to this pricklypear location.

State

State in United States of America. For example, Mississippi.

County

County or Parish within State.

Date (MM/DD/YYYY)

Date observation is being, or was, made. For example, March 6, 2005 would be entered as 03/06/2005.

GPS Coordinates

GPS, or Global Positioning System coordinates generally recorded from a handheld GPS unit. There are many coordinates systems, but UTM or decimal degrees are requested here. If you do not have either of these, certain other GPS coordinate systems can be converted to UTM or decimal degrees using conversion software like the following: <http://boulter.com/gps/>. If you do not have a GPS unit, coordinates can be determined from a mapping program or website, such as Discover Life (<http://www.discoverlife.org/>) Global Mapper.

Datum

The datum defines the size and shape of the Earth and the origin and orientation of the coordinate system used to map the Earth. There are many datums available, but WGS-84 is preferred here. NAD-83 is essentially the same as WGS-84. Likewise, NAD-27 and Clark 1866 may be used interchangeably. **(For small size populations, provide the center point. For significant size populations, enter corners.)** A population can be defined as a group of individual species in a given area at a given time. Minimum distance between

populations is 30 meters. Minimum population number is one plant. No maximum, but plants should be less than 30 meters apart within a population. Create a bounding box of 4-6 coordinates for larger populations.

UTM Coordinates

UTM, or Universal Transverse Mercator Coordinates, Globe gridded into zones which are metered east (easting) and north (northing).

Zone

All of the lower 48 States are covered by UTM Zones 10 to 19. For example, all of Alabama is in UTM Zone 16.

Decimal Degrees

Latitude and longitude in Decimal Degrees.
For example: Lat 31.2611 Lon 89.462983.

Coordinate Comments

Comments regarding GPS Coordinates. For example: 'Private property, thus GPS Coordinate recorded from street 20 feet S of actual 'population'.

Location Description

Population location description, such as street address, city, and zip code, township range section (e.g. T128N R6E Sec. 29), landmarks (e.g. churches, rivers, mile markers, etc.), and/or any other identifiable description that would help relocate the population. A physical address that includes the street or road name should be collected at a minimum. For contact person on private land, 'unknown' can be entered if information unavailable. If the phone number for a private landowner is not available, '111-111-1111' can be entered.

Location Ownership

Is the land on which the populations is growing privately, locally (e.g. city), county, state (e.g. state park), or federally owned (e.g. National Park Service)? Circle only one.

Contact Information

Contact Information for location ownership. Contact person's name, affiliation (if any), mailing address, phone number, and email address. For contact person on private land, 'unknown' can be entered if information unavailable. If the phone number for a private landowner is not available, '111-111-1111' can be entered.

Landuse Category

How is the land being used.

Commercial Landscape

Land used for commercial landscape, either private or corporate business. For example, plants growing in a landscape in front of a store.

Residential Landscape

Land used for residential landscape. Private ownership, such as plants growing in a yard. Could be in the country or city.

Agricultural

Plants grow as an agronomic crop, such as forage or fruit production.

Natural Population

Wild population, not planted and not cultivated. Naturally occurring with biotic and abiotic factors such as sandy soil and natural associate plant species.

Nursery

Plant(s) for sale or in possession of a commercial nursery. If plants are planted in the ground, complete this form, and if infected, contact the Department of Agriculture in your state. If plants are in a container and infected, contact the Department of Agriculture, but do not complete this form.

Data Collector

Person collecting field or herbarium data. Use full name.

Affiliation

Organization data collector is working or volunteering for. Do not use acronyms.

Contact Information

Contact Information for the data collector. May not be the same as that for the affiliation.

Employee

Employed either part or full time for the affiliation.

Volunteer

Volunteer either part or full time for the affiliation.

Date Identified

Date plant was first identified. If data taken from a herbarium voucher specimen, use collection date on label.

Plant Identifier

Person identifying plant. If data was taken from a herbarium voucher specimen, use collectors name on label.

Affiliation

Organization plant identifier works for, or contributes to. If data is taken from a herbarium voucher specimen with no affiliation for the identifier, then use the name of the herbarium.

Employee

Employed either part or full time for the affiliation.

Volunteer

Volunteer either part or full time for the affiliation.

Contact Information

Contact Information for the plant identifier. If data is taken from a herbarium with no contact information for the identifier, use the contact information for the herbarium.

Pricklypear Present

Refers to the presence of pad-forming *Opuntia* spp. (subgenus *Platyopuntia*). If there are more than one *Opuntia* species present within the plant population area, then collect separate data for each species, except soil type/texture.

Plant ID

Plant ID or Identification. For positive identifications, select a species of *Opuntia* from the drop-down list. Additional information on identification can be found on the USDA-NRCS Plants Database website at <http://plants.usda.gov/index.html>, or the Flora of North America at http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=10141. If species is not on list, select 'other'. If you do not know, select 'unknown' and attach up to two images of plant, or send a specimen. Images should include one of entire plant and one close-up of flowers, fruits, and/or stem morphology (color, size, shape, and node characteristics). Take image close enough to fill picture with plant or plant components as opposed to taking images at a distance. The higher the pixels, the better the image. The images must be in the JPG format and no larger than 3 MB in file size. Images that are submitted become property of Mississippi State University.

Plant Specimen Taken

Was a specimen collected at the time of data collection?

If data is taken from a herbarium voucher specimen, select 'Yes'. If sending specimen for identification, wrap in newspaper, place in box, and ship. Shipping information, such as shipping date, expected arrival date, and/or tracking number, would be helpful if placed in the 'Notes' box at the bottom of the form. Samples should be sent to Dr. Victor Maddox (**US Postal: Mississippi State University, Plant and Soil Sciences, Box 9555, Mississippi State, MS 39762; FEDEX/UPS: 117 Dorman Hall, Stone Blvd., Mississippi State, MS 39762; Phone: 662-325-2313; email: vmaddox@pss.msstate.edu**) for identification. All samples become the property of Mississippi State University.

Collection Number

Number assigned by the Collector, Identifier and/or Verifier for the purpose of tracking the plant sample during shipping and identification processing. A collection number is required for each sample and may include letters and/or numbers. Both the Pricklypear Site ID and Collection numbers must accompany the plant sample. A herbarium voucher sample may be taken from the sample for future reference. If data is taken from a herbarium voucher specimen, use the number assigned by the original collector. If none, use the herbarium collection number.

Plants

Number of plants of this particular *Opuntia* species. Minimum equals one; maximum unlimited. If necessary, refer to population size under GPS Coordinates and Plant Population Area. Data collector can use whole numbers up to 25. Numbers between 25 and 100 can be rounded to nearest 5. Numbers from 100 to 1000 can be rounded to nearest 50 or 100, and numbers over 1000 to the nearest 100 or 1000.

Percent Cover

Area of coverage for this particular species within the GPS coordinate area given previously under GPS Coordinates. Round percent cover of this particular species to the nearest 10%.

Plant Population Area

A population can be defined as a group of individual species in a given area at a given time. Minimum population area is one ft². No maximum, but plants must be less than 30 meters apart within a population area. Refer to population size under GPS Coordinates. The plant population area may include one or more species of *Opuntia*.

Soil Type/Texture

Select a basic soil texture of sand, silt, or clay. If between two textures, select the closest texture. Bedrock refers to rock outcrops, chalk outcrops, or large boulders on which plants are growing. Check only one soil type/texture. The information is optional.

Suspect Cactus Moth

Suspect Cactus Moth refers to *Cactoblastis cactorum*. If 'Yes', attach Cactus Moth Visual Observation Form. If 'No', the web database will automatically submit a negative report.

Associate Plant Species

Plant species present, other than *Opuntia*, within the population area. If plant species is not on drop-down list, type in scientific name in notes section below. All names must be consistent with the ITIS web database

<http://www.itis.usda.gov/> . Associate Plant Species is an optional data field.

Notes

For notes pertaining to data other than GPS Coordinate data, such as shipment information for specimen(s) sent for identification, or herbarium archiving.

Note: If data is being entered on the web Pricklypear Data Form, the red asterisks indicate required fields.