



NORTH AMERICAN TRUFFLE GROWER ANNUAL REPORT 2024

Data to describe the industry
and gain valuable insight on
truffle production throughout
North America.



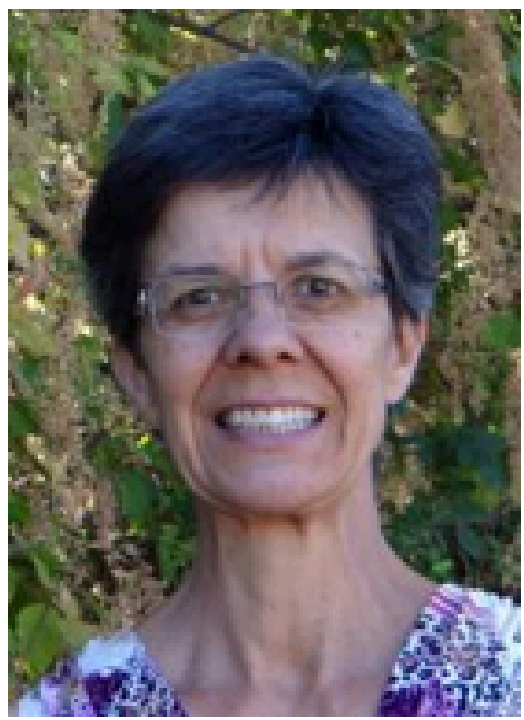
We need your data!



<https://link.ucanr.edu/trufflesurvey>

This annual survey is used to collect producer data to better understand the truffle industry in North America. The questions help characterize important demographics like orchard types, truffle species grown, site conditions, management practices, and production status. The results will be used to guide future research needs and align growers with researchers. Data is collected annually with a reporting period of November – October. Survey respondents will receive a unique link each October to modify the previous year's data. New growers or prospective growers can fill out their initial survey at <http://ucanr.edu/trufflesurvey>

North America Truffle Survey Team



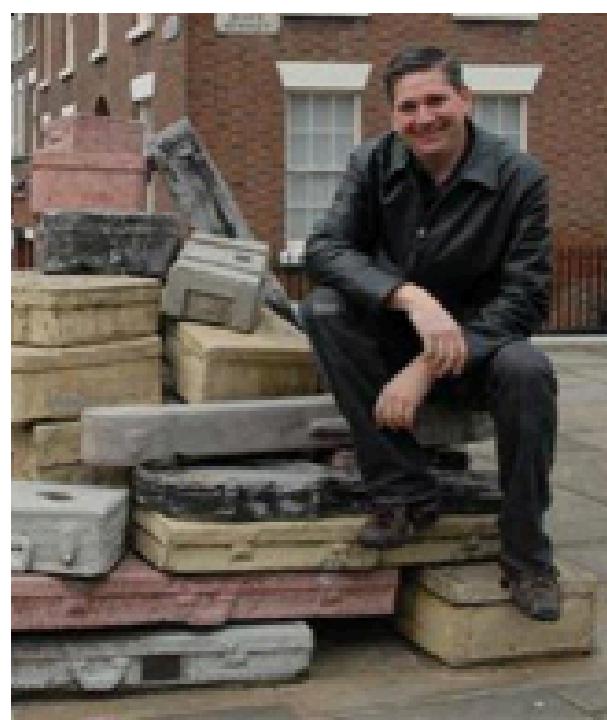
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Earned a PhD from MIT studying the interactions of fungi, plants and people in soils of high human impact



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Truffle grower
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Davis Upchurch

Truffle grower, Carolina
Truffières, Fletcher NC



Ann Scanlon

Truffle grower,
Sugarloaf, California

Please note the following before viewing the survey results:

- All identifying information about orchards has been anonymized and will never be publicly available.
- Participants were asked to complete separate surveys for orchards in different locations and for orchards with different management strategies at the same location.
- Participants had the option to skip questions, so the figures presented are based on the available number of responses, which is listed for each figure.

Photo credits: Pg 1: Kelly Cline, Pg 3-5, 7: Scott Oneto, Pg 8: Valentyn Volkov, Pg 8: Brizius

Please use the following citation to reference this report:

Allen, B., Berch, S., Oviatt, P., Bonito, G., Long, P., Upchurch, D., Scanlon, A., and Oneto, S. 2024. North American Truffle Growers Annual Report 2024. <https://my.ucanr.edu/sb3/admin/fileedit.cfm?filenum=409196&msg=File%20updated!#:~:text=//my.ucanr.edu/sites/CentralSierraAg/files/409196.pdf>

ORCHARD STATUS

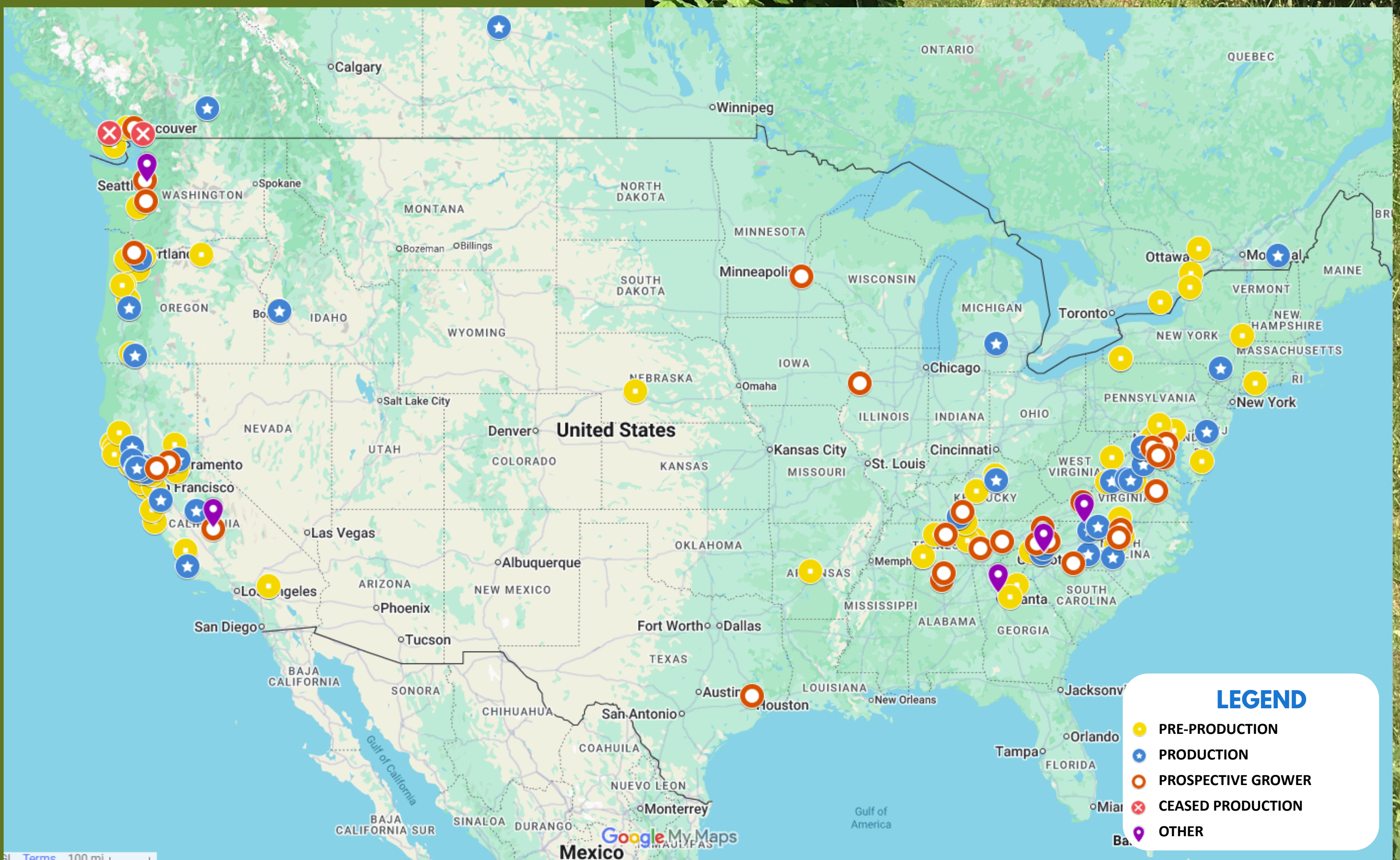
Total responses: 176

Grower Experience	Count	Percentage
Prospective grower	29	16%
Pre-production	88	50%
Production	53	30%
Other	6	3%

Prospective growers include individuals interested in growing truffles or looking to learn more about the industry. These respondents may also be looking for property or have property and are getting ready to plant. Pre-production are orchards that have not produced truffle. Production includes orchards that have produced any quantity of truffle. The Other category includes those that are integral to the truffle industry including dog handlers, trainers, consultants, etc.

ORCHARD LOCATION

Total responses: 175



ORCHARD INSTALLATION OVER TIME

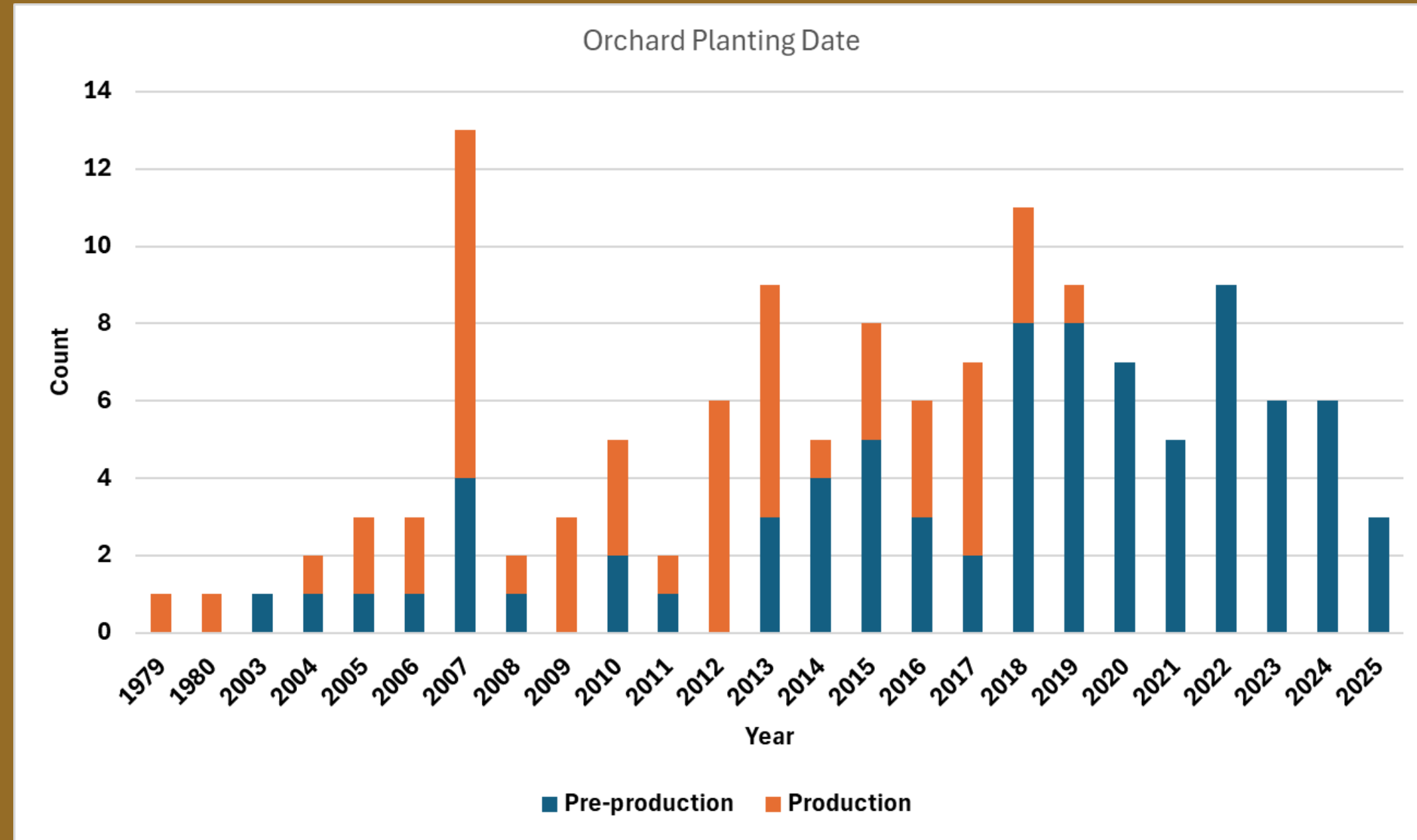
TOTAL RESPONSES: 133

Note: This chart displays two separate datasets:

First, it shows the number of orchards planted annually, and color differences can be ignored. Second, the color coding shows which orchards have come into production between the year they were planted and the time of the survey.

There are three distinct clusters:

- 1) The majority of orchards planted between 1979 and 2017 (62%) have come into production sometime after planting. Please note that this does not indicate that age alone is necessary to achieve truffle production.
- 2) Some orchards planted between 2004 and 2019 have since started producing truffles while others have not.
- 3) All orchards planted between 2020 and 2025 have yet to reach production.

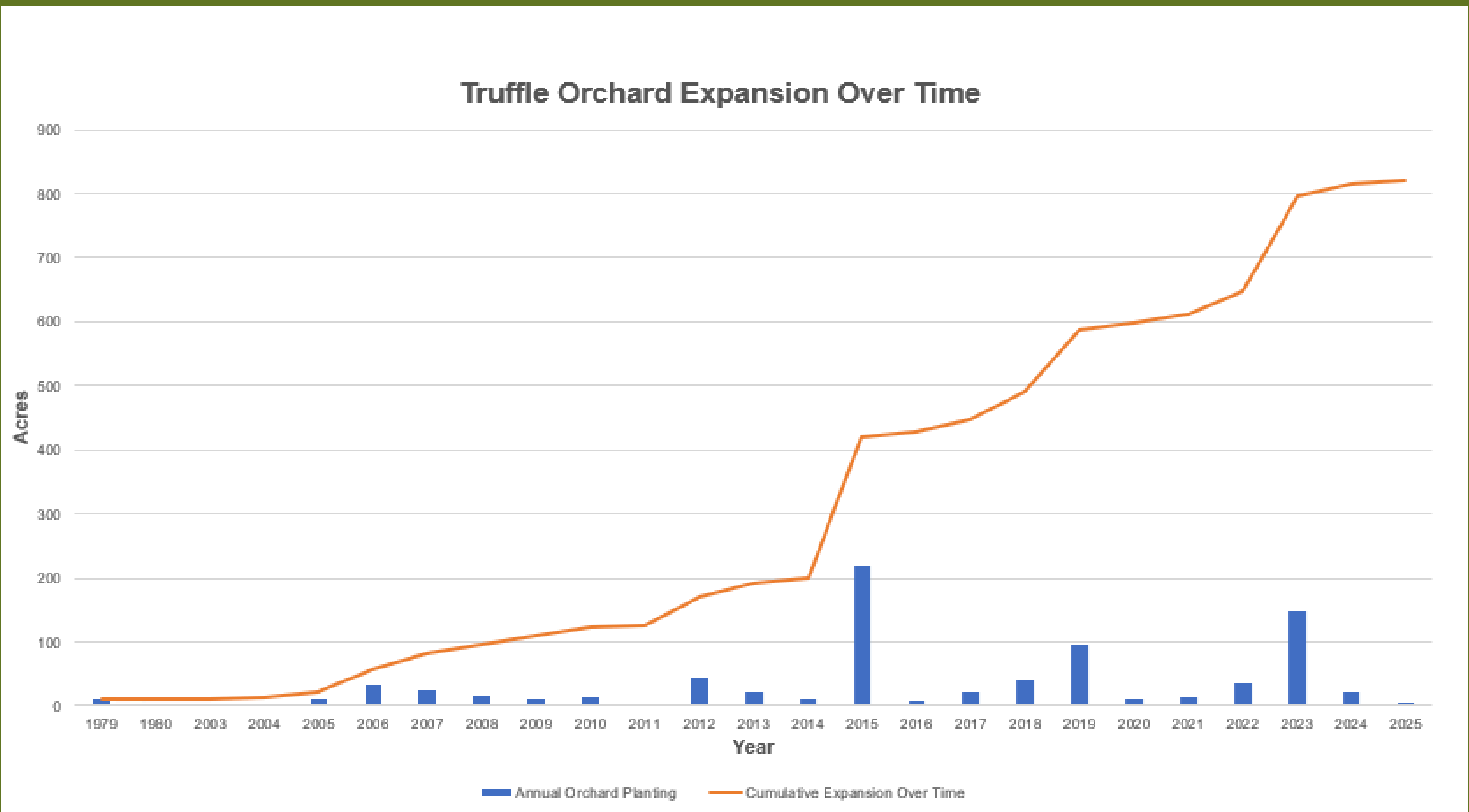
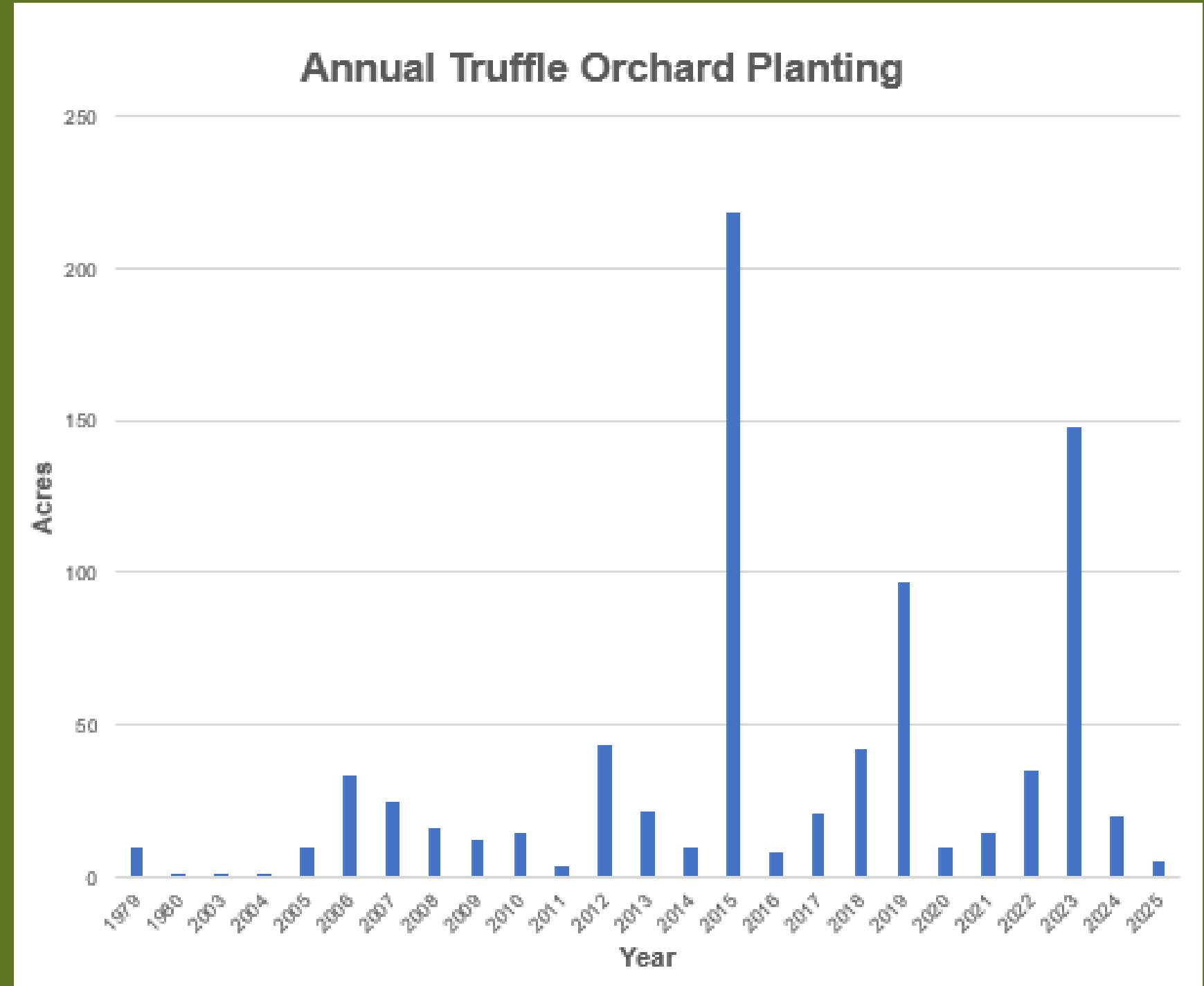




ORCHARD SIZE

TOTAL RESPONSES: 141

Total acreage: 829 acres
 Total in Production: 353 acres
 Total Pre production: 476 acres
 Average orchard size: 6 acres



TOTAL NUMBER OF TREES PLANTED

- Total trees planted = 142,091 host trees in all orchards
- Average number of trees planted per orchard = 1,008 trees
- Average number of trees planted per acre: 171 trees

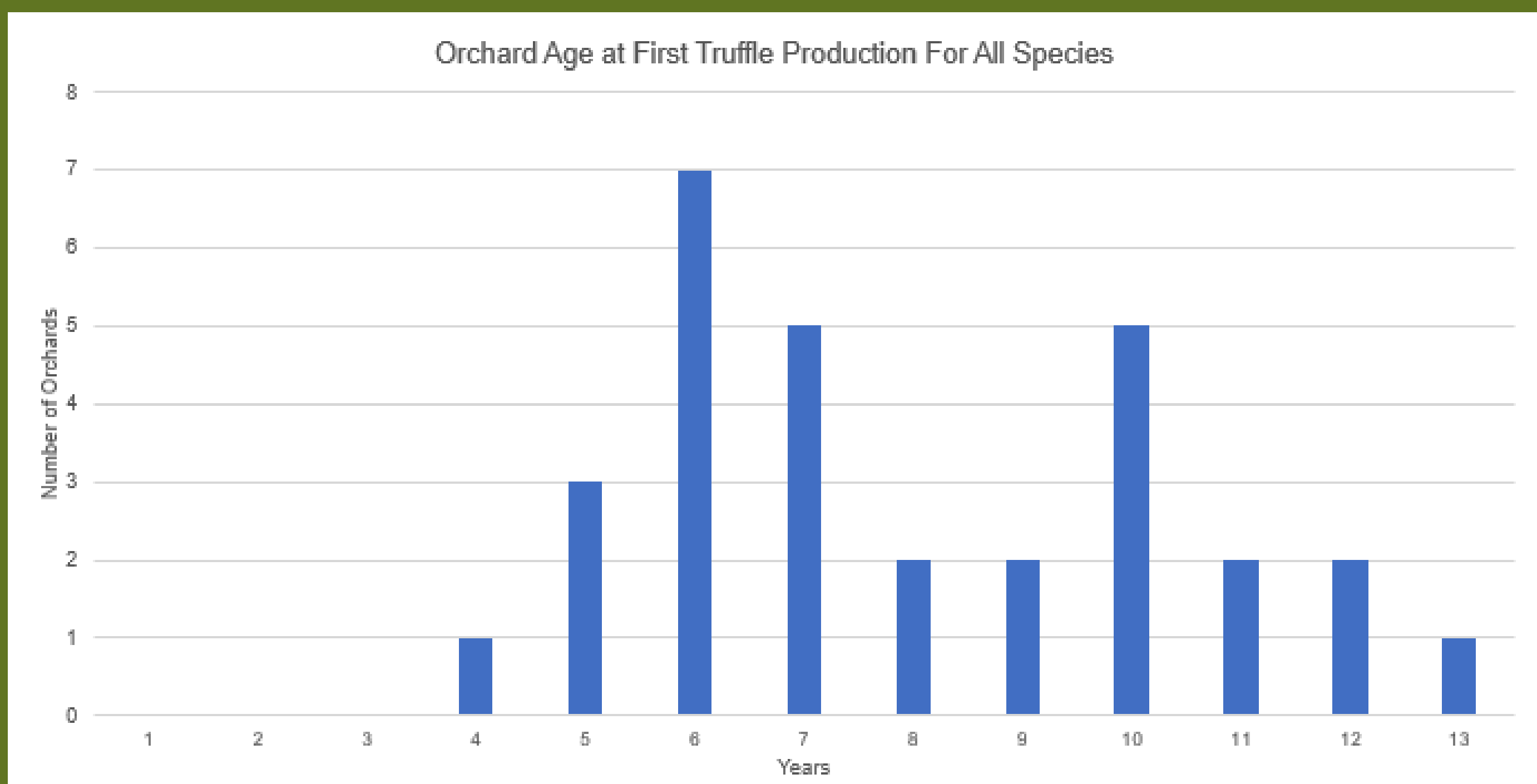
TREE SPECIES USED IN ORCHARDS

36 species in 7 plant families

Beech Family	Dunstan Chestnut	<i>Castanea dentata</i> x <i>C. mollissima</i>
	Chestnut Hybrid	<i>Castanea sativa</i> x <i>C. crenata</i>
	Chestnut	<i>Castanea</i> spp.
Birch Family	American Hazelnut	<i>Corylus americana</i>
	Hazelnut / Filbert	<i>Corylus avellana</i>
	Turkish Hazel	<i>Corylus colurna</i>
	Hazel	<i>Corylus</i> spp.
	European hornbeam	<i>Carpinus betulus</i>
Oak Family	White Oak	<i>Quercus alba</i>
	Bicolor Oak	<i>Quercus bicolor</i>
	Kermes Oak	<i>Quercus coccifera</i>
	Portuguese Oak	<i>Quercus faginea</i>
	Garry Oak	<i>Quercus garryana</i>
	Holly Oak	<i>Quercus ilex</i>
	Black Oak	<i>Quercus kelloggii</i>
	Valley Oak	<i>Quercus lobata</i>
	Bur Oak	<i>Quercus macrocarpa</i>
	Japanese Oak	<i>Quercus mongolica</i>
	Chinquapin Oak	<i>Quercus muehlenbergii</i>
	Downy Oak	<i>Quercus pubescens</i>
	English Oak	<i>Quercus robur</i>
	Holm Oak	<i>Quercus rotundifolia</i>
	Northern Red Oak	<i>Quercus rubra</i>
Oak	<i>Quercus</i> spp.	
Cork Oak	<i>Quercus suber</i>	
Southern Live Oak	<i>Quercus virginiana</i>	
Pine Family	Norway Spruce	<i>Picea abies</i>
	Spruce	<i>Picea</i> spp.
	Stone Pine	<i>Pinus pinea</i>
	Pine	<i>Pinus</i> spp.
	Eastern White Pine	<i>Pinus strobus</i>
	Loblolly Pine	<i>Pinus taeda</i>
Willow Family	Willow	<i>Salix</i> spp.
	Poplar	<i>Populus</i> spp.
Other	American Linden	<i>Tilia americana</i>
	Pecan	<i>Carya illinoensis</i>

ORCHARD AGE AT PRODUCTION

Average orchard age at the time of first production for all truffle species: 8 years old



TOTAL YEARLY PRODUCTION

156 pounds



	Number of Producing Orchards	Total Weight lbs.	Total Truffles Harvested	Total Number of Bearing Trees
Black Truffle (<i>Tuber melanosporum</i>)	23	137.9	365	244
Burgundy Truffle (<i>Tuber aestivum</i>)	5	11.3	394	91
Bianchetto truffle (<i>Tuber borchii</i>)		0	0	0
Appalachian Truffle (<i>Tuber canaliculatum</i>)	3	4	Not Reported	100
Pecan Truffle (<i>Tuber lyonii</i>)	9	2.16	52	11
White truffle (<i>Tuber magnatum</i>)		0	0	0
Muscat truffle (<i>Tuber brumale</i>)	1	0	0	0
<i>Tuber cumberlandense</i>		0	0	0
Black truffle (<i>Tuber <u>macrosporum</u></i>)	1	0.75	7	6
<i>Tuber spp.</i>		0	0	10

Soil pH

TOTAL RESPONSES: 129

	pH
Pre-production	7.31
Production	7.67



**THANK YOU TO THOSE WHO PARTICIPATED
IN THE GROWER SURVEY**



