



CGA Annual Market survey plus a couple slides on yield and nut size 2015-2016

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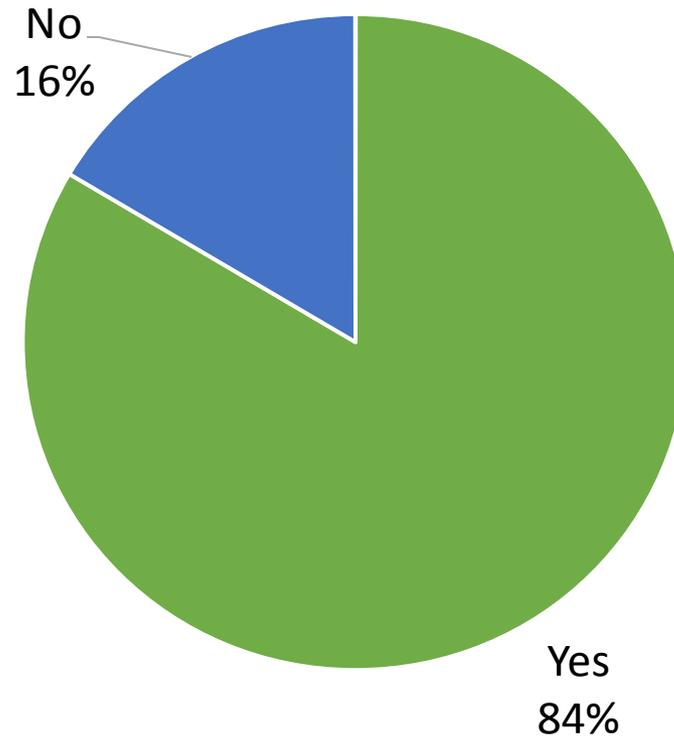


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CGA membership

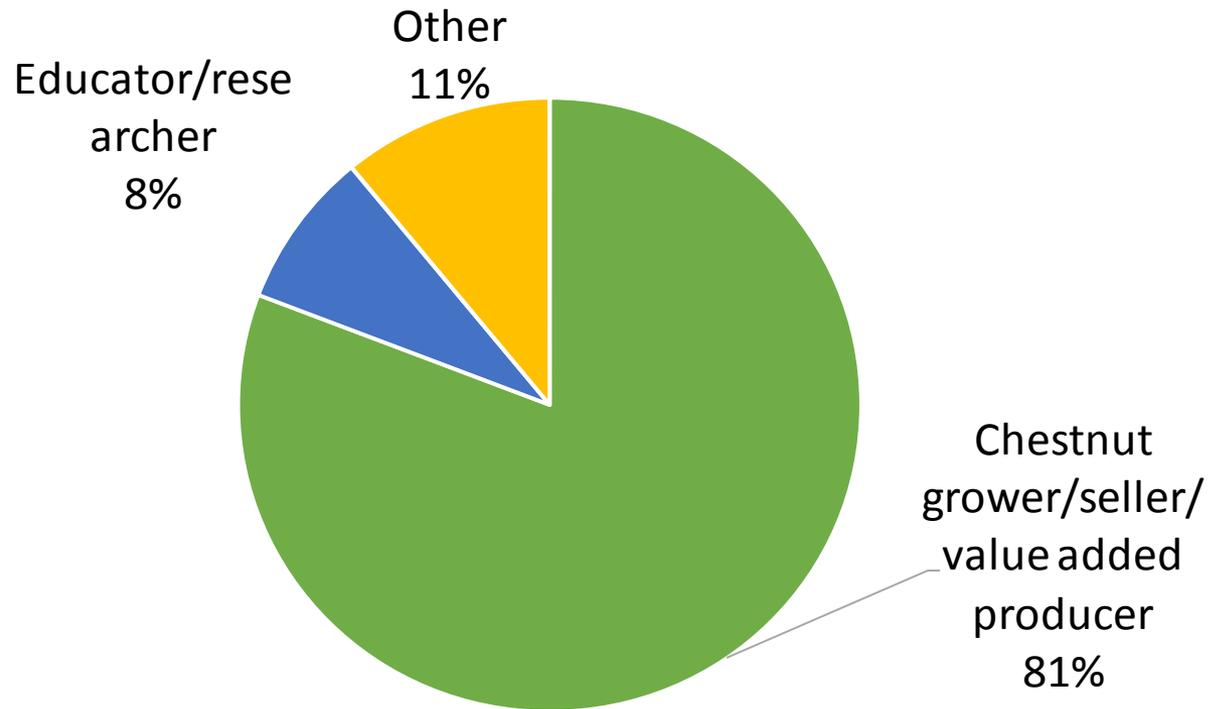
Are you currently a CGA member?



N=73 (total respondents)

Survey participants-Activities

Which of the following describes you?



N=73 (total respondents)

Survey participants-Activities

I have established chestnut trees which are in production and I market

71%

Sell fresh chestnuts

61%

I have established chestnut trees which are not in production yet AND I don't market.

22%

I have established chestnut trees which are not in production yet AND I market

15%

Produce and sell nursery stock

15%

Buy from other grower(s) and resell

12%

Produce and sell value added products

10%

Other

5%

N=59 (growers/sellers)

Survey participants – 17 States

State where orchard is located

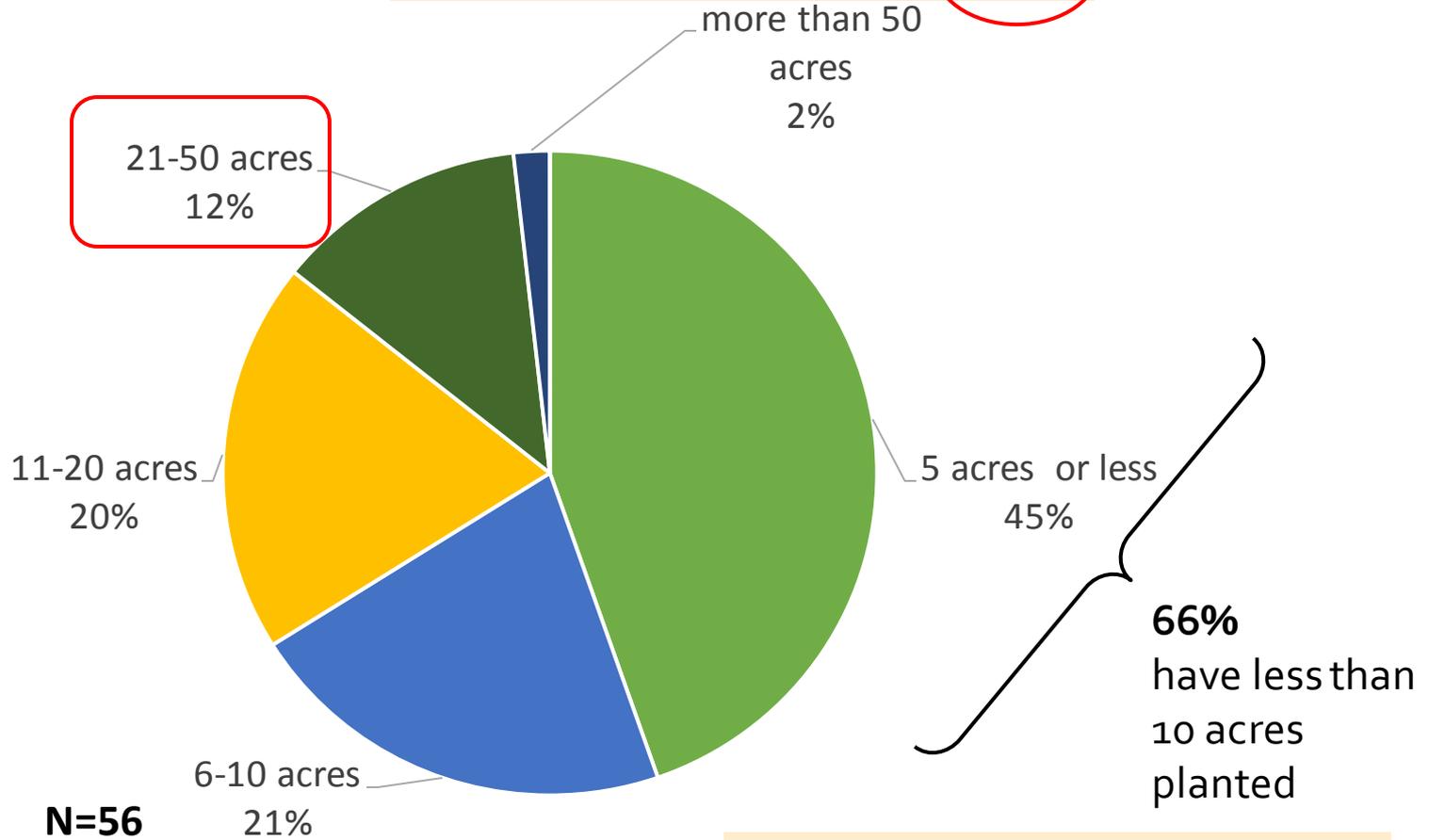
Total acres planted: 463

AL	2
CA	5
FL	3
IA	8
ID	1
IL	4
KS	1
MI	7
MO	8
NC	1
OH	4
OK	1
OR	3
SC	2
TN	2
VA	3
WA	3

N=58

Production operation - 2015/2016

Acres planted in chestnuts
Total acres reported = 655

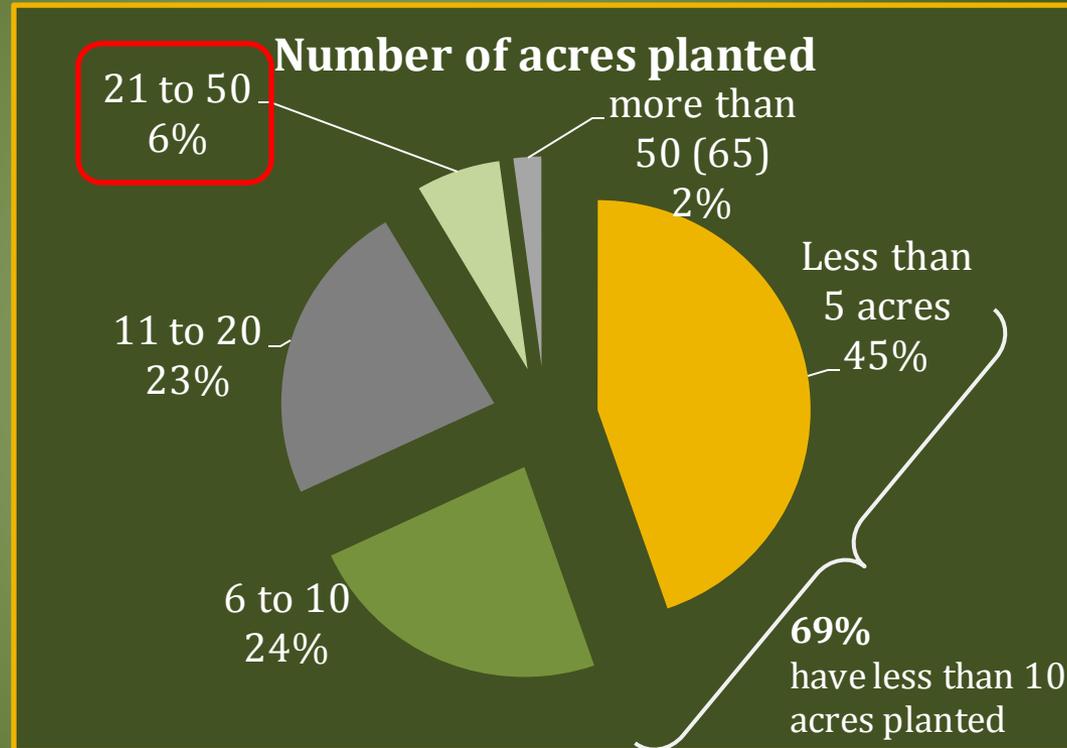


384 acres in commercial production

Production operation – 2012/13

Acres planted in chestnuts

Total acres reported = 463



(N=49)



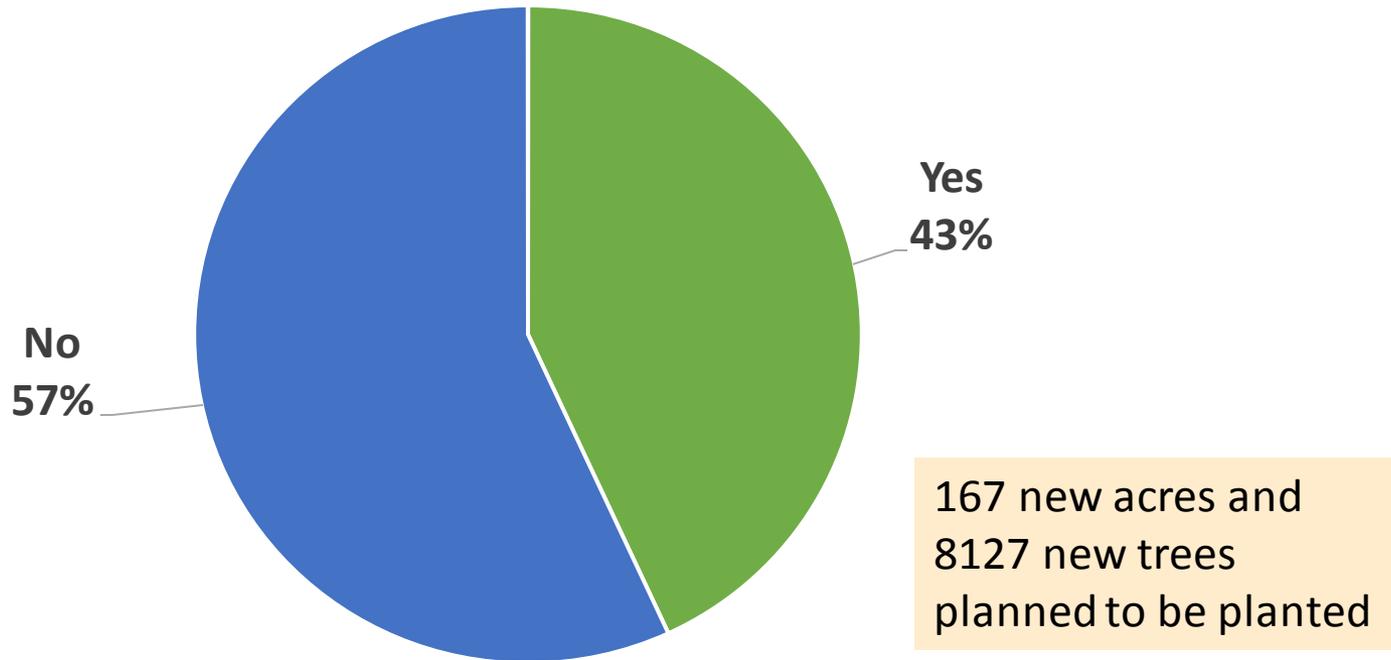
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Production operation

Plans for expansion – 2015/16

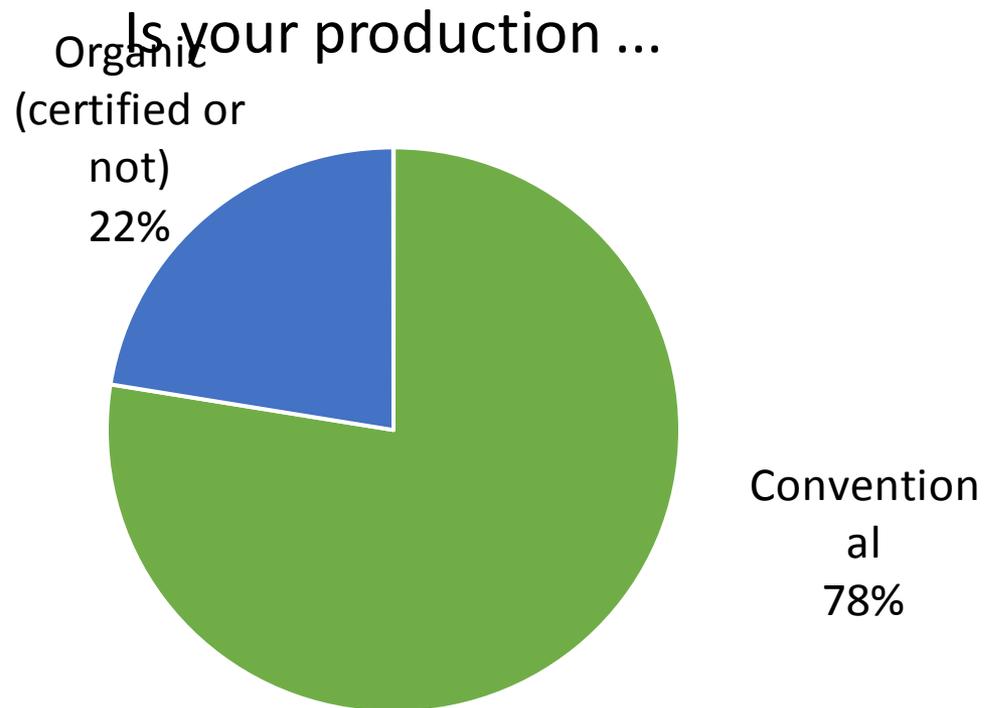
Are you planning to expand your orchard?



N=25

Production operation

Production process

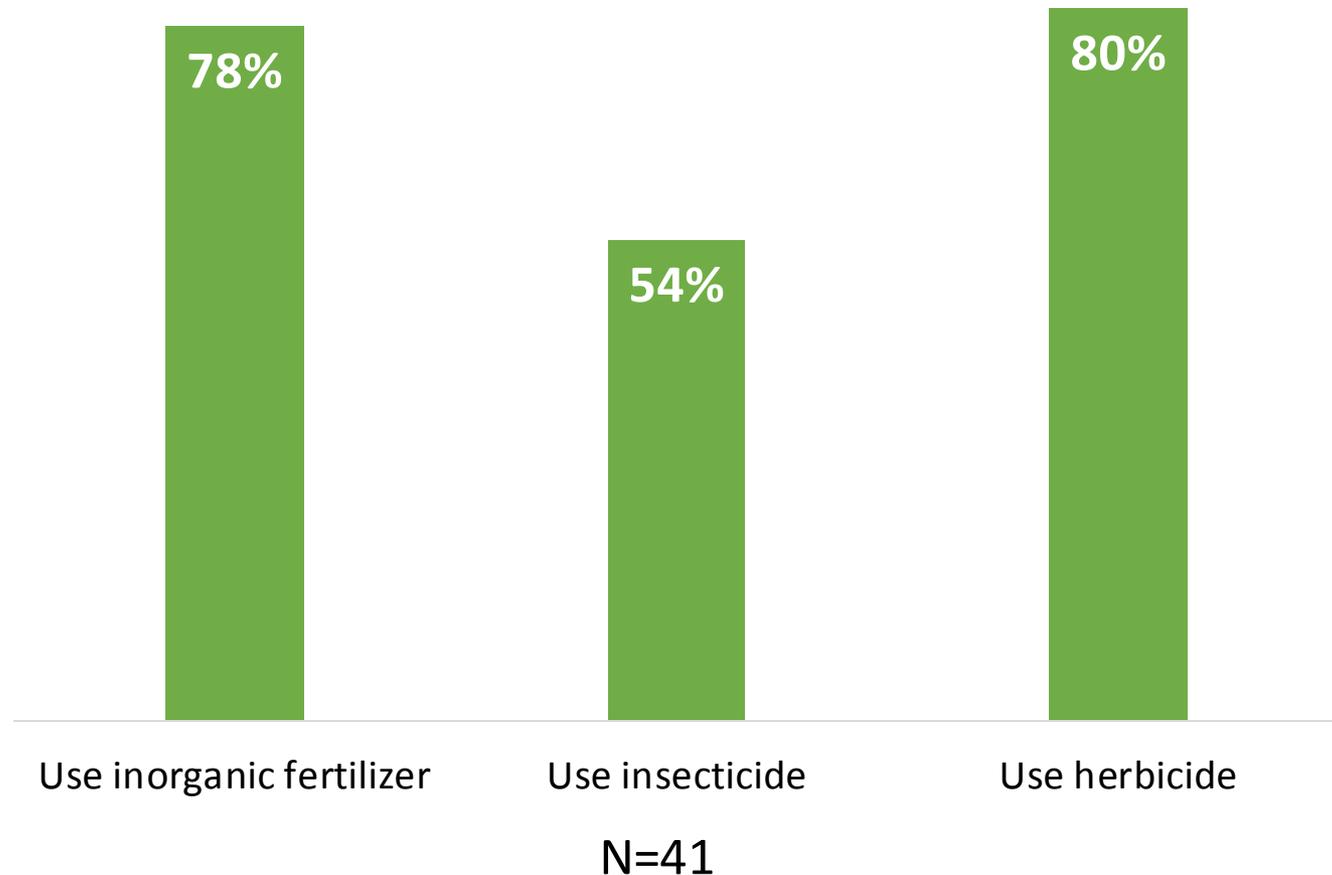


N=57

Production operation

Production process

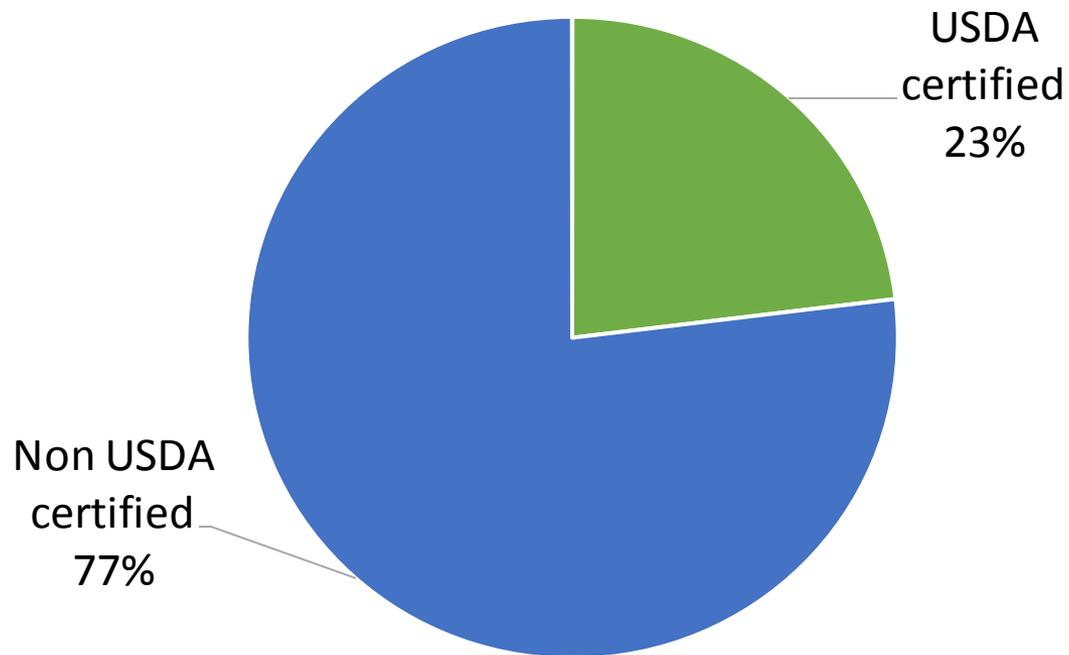
Conventional production methods



Production operation

Production process

Organic production methods

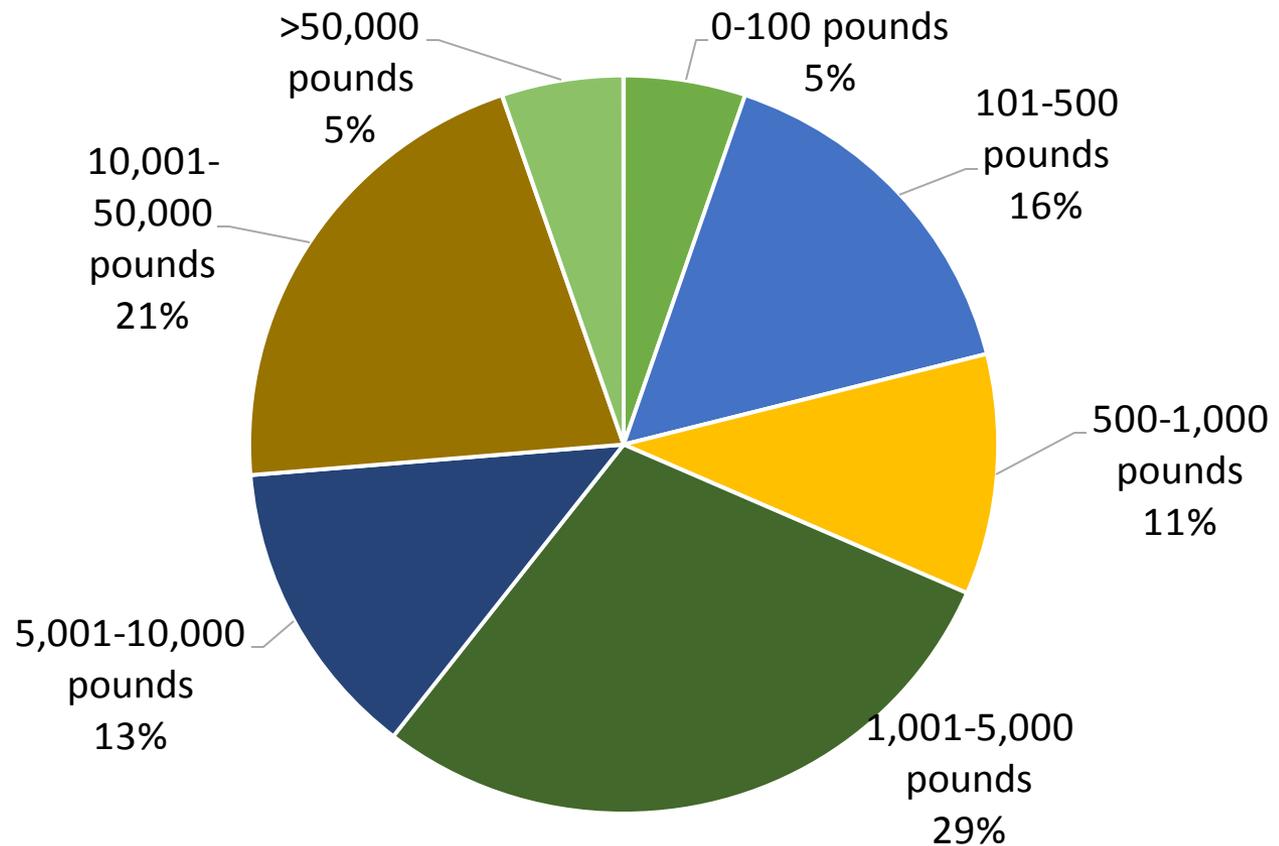


N=13

The 2015 production season

Pounds of chestnuts harvested

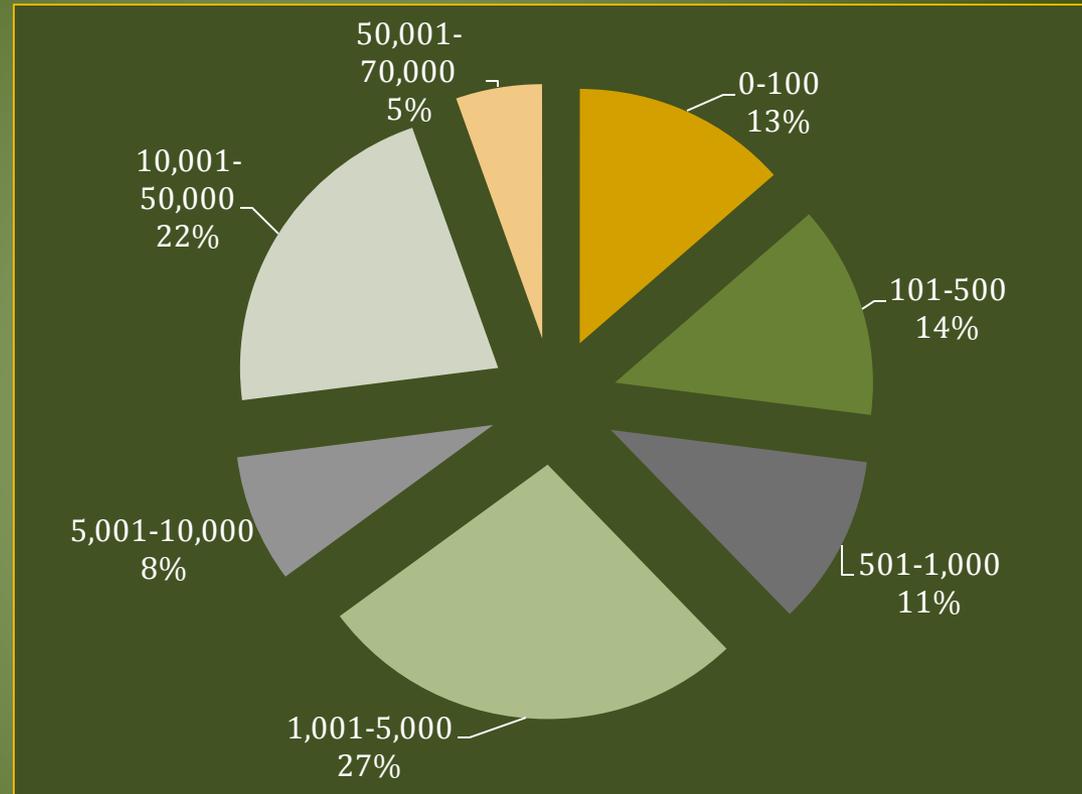
Total pounds harvested: 477,424 pounds



N=38

The 2012 production season

Total pounds harvested: 290,600



(N=37)

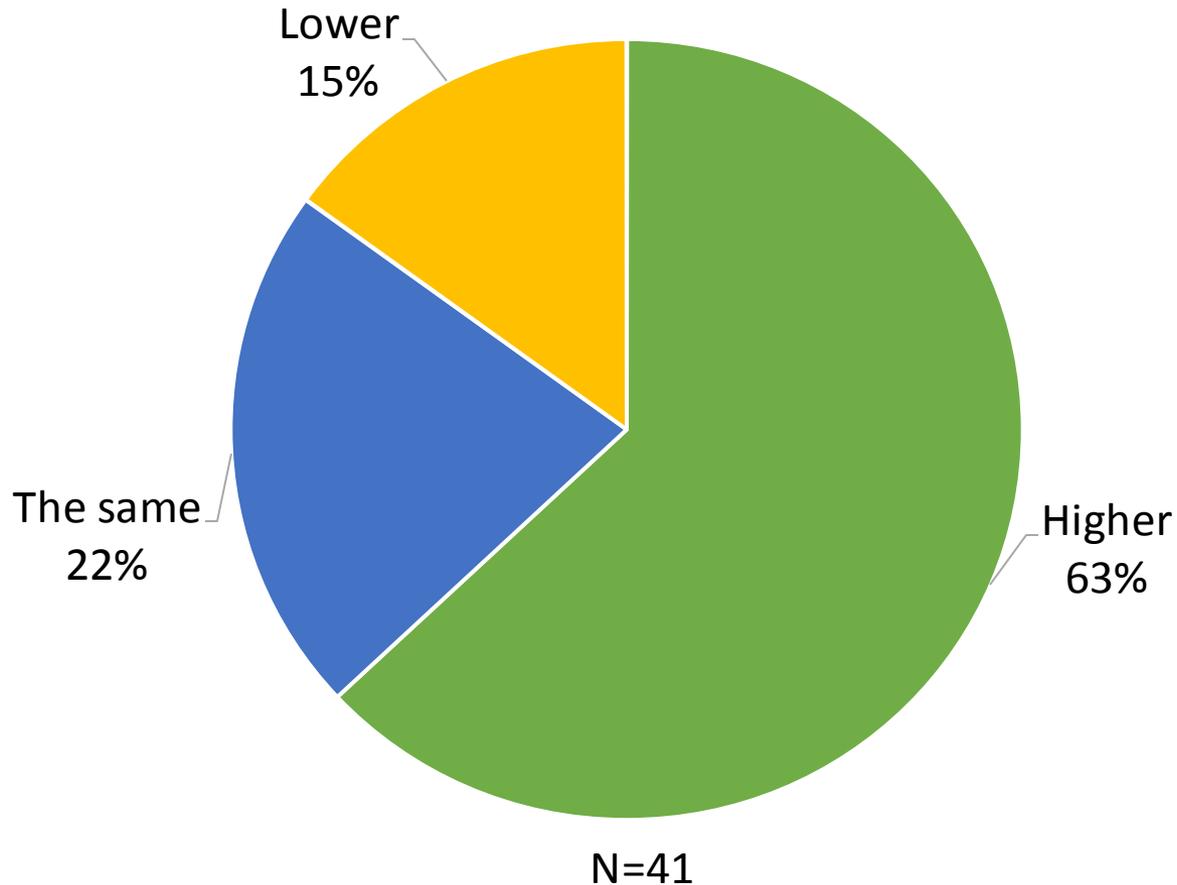


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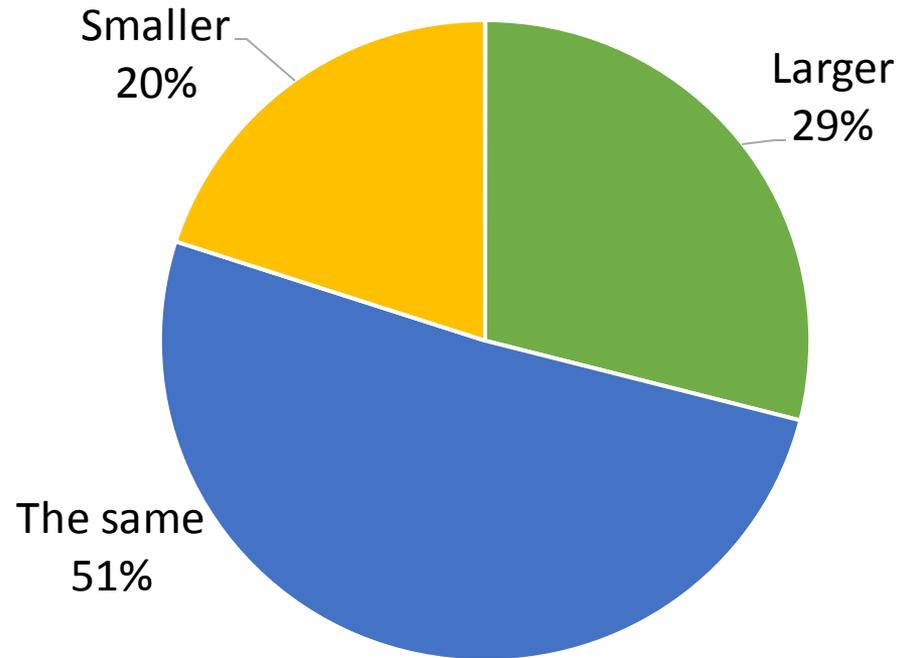
The 2015 production season

Overall yield in 2015 compared to 2014



The 2015 production season

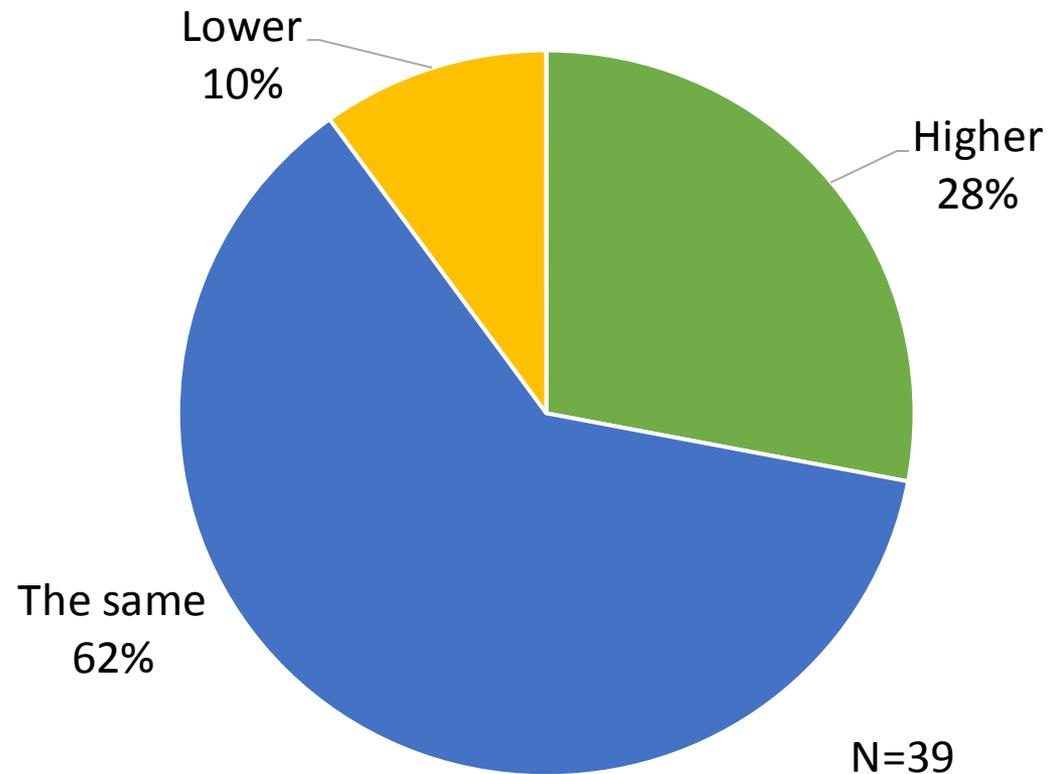
Average size of chestnuts 2015 compared to 2014



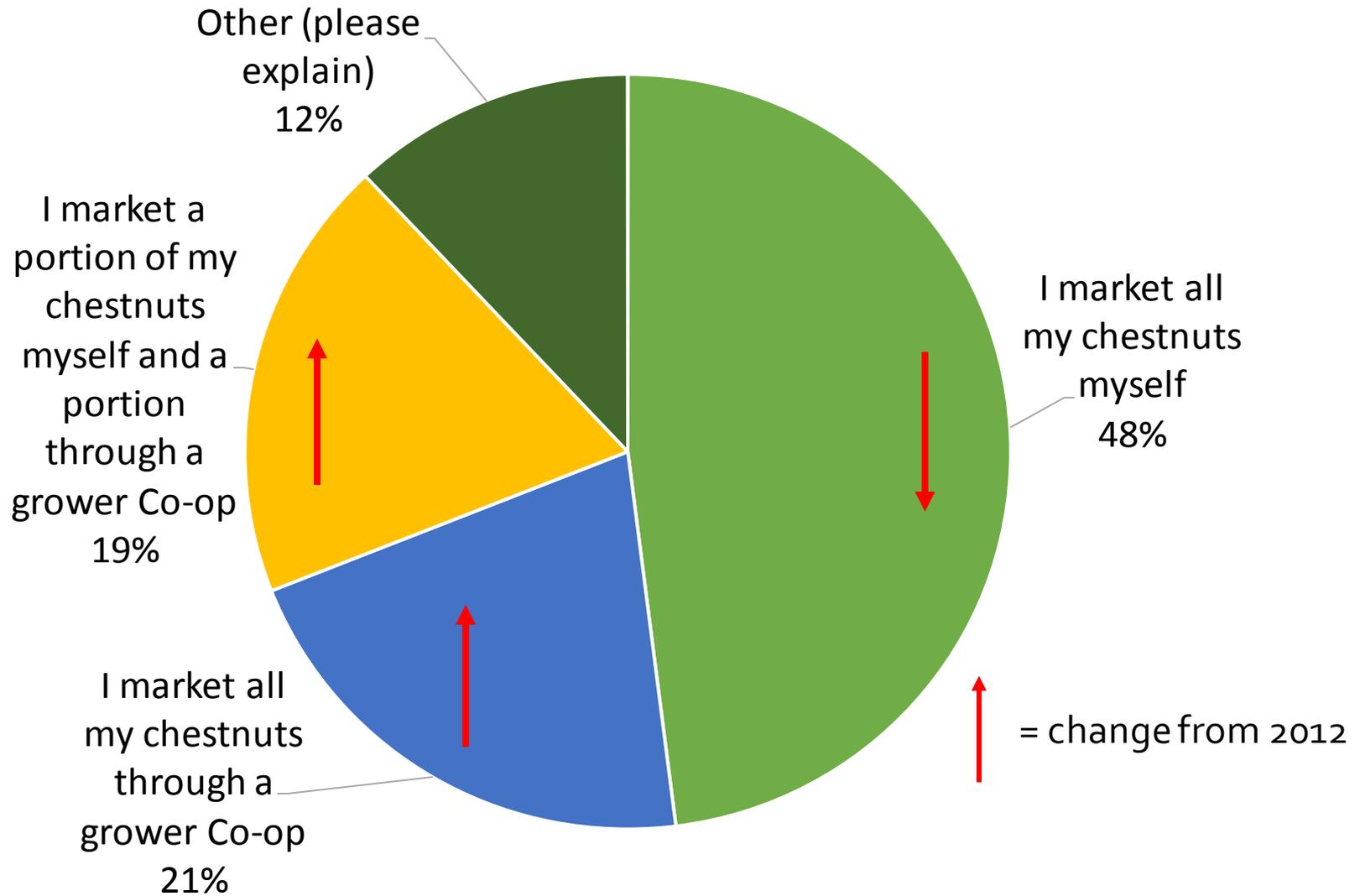
N=41

The 2015 production season

Quality (appearance of chestnuts) in 2015 compared to 2014



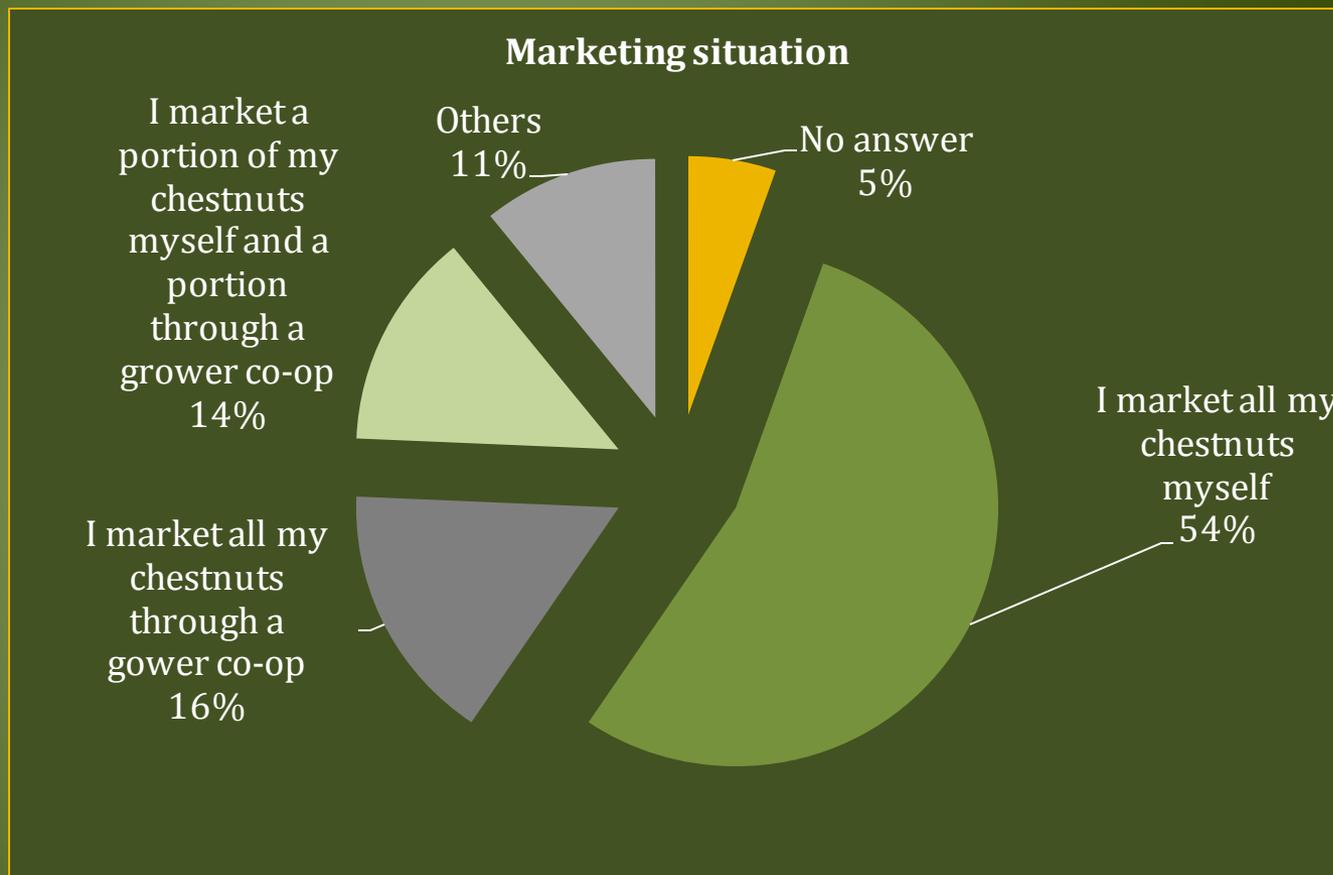
Survey participants 2015 - Marketing



N=42

Survey participants - 2012

Marketing



N=37

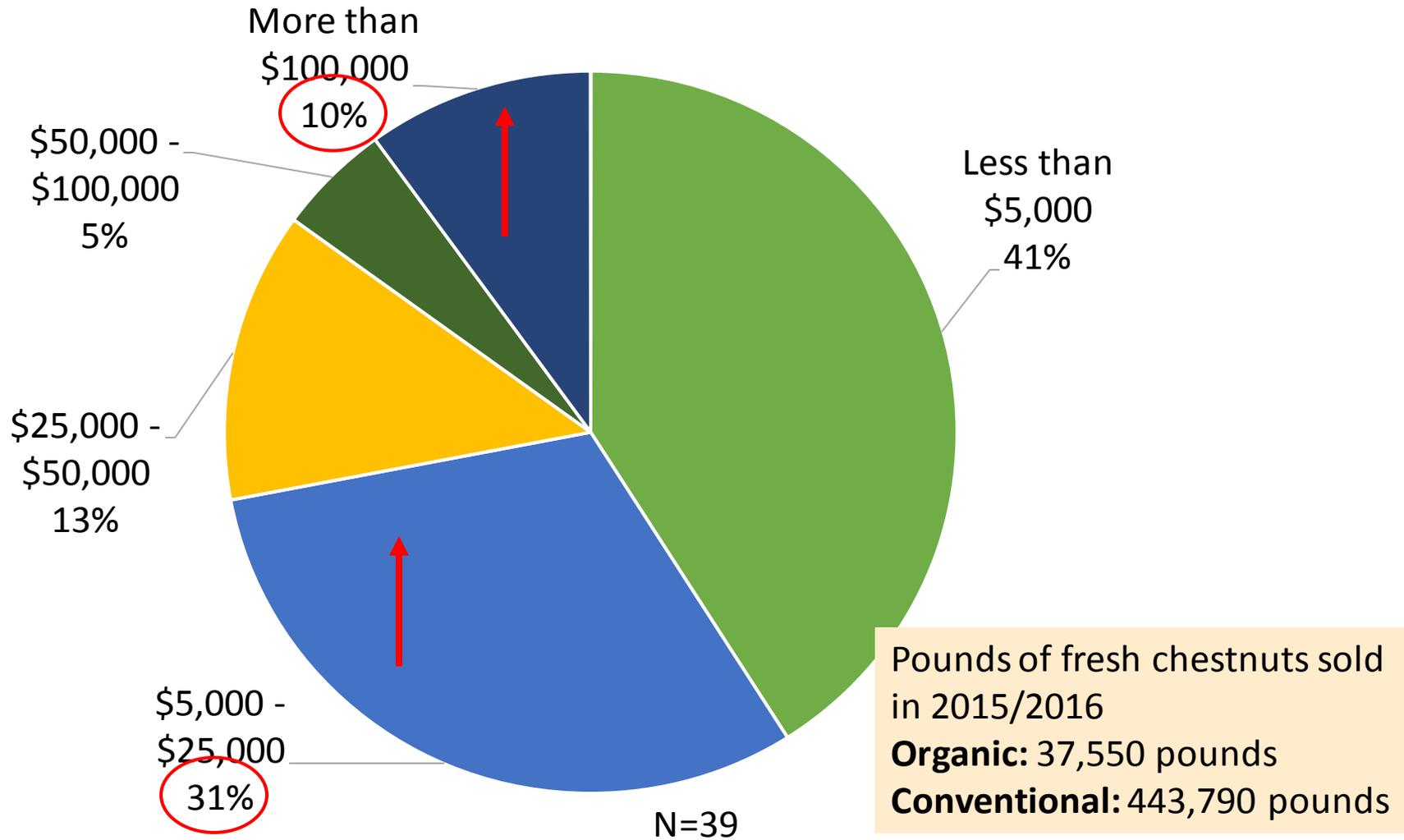


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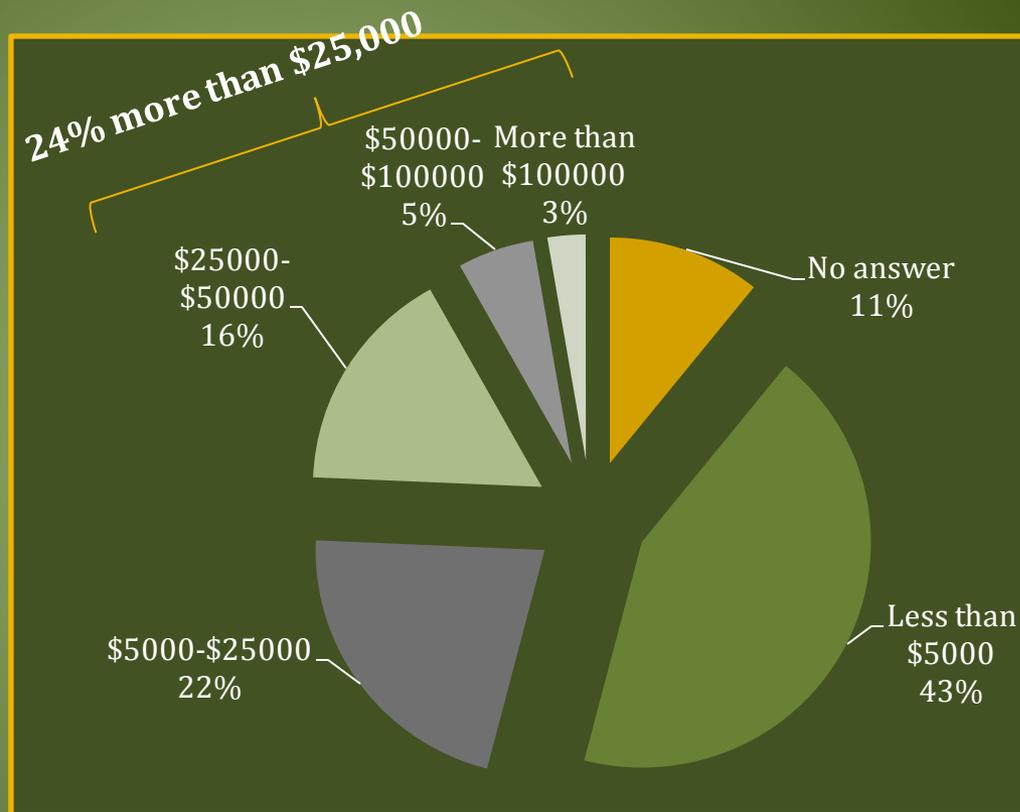
The 2015/16 marketing season

Approximate annual gross sale figure from chestnuts in 2015
excluding shipping and delivery



The 2012 marketing season

Approximate annual gross sale figure from chestnuts in 2012, excluding shipping and delivery



(N=37)

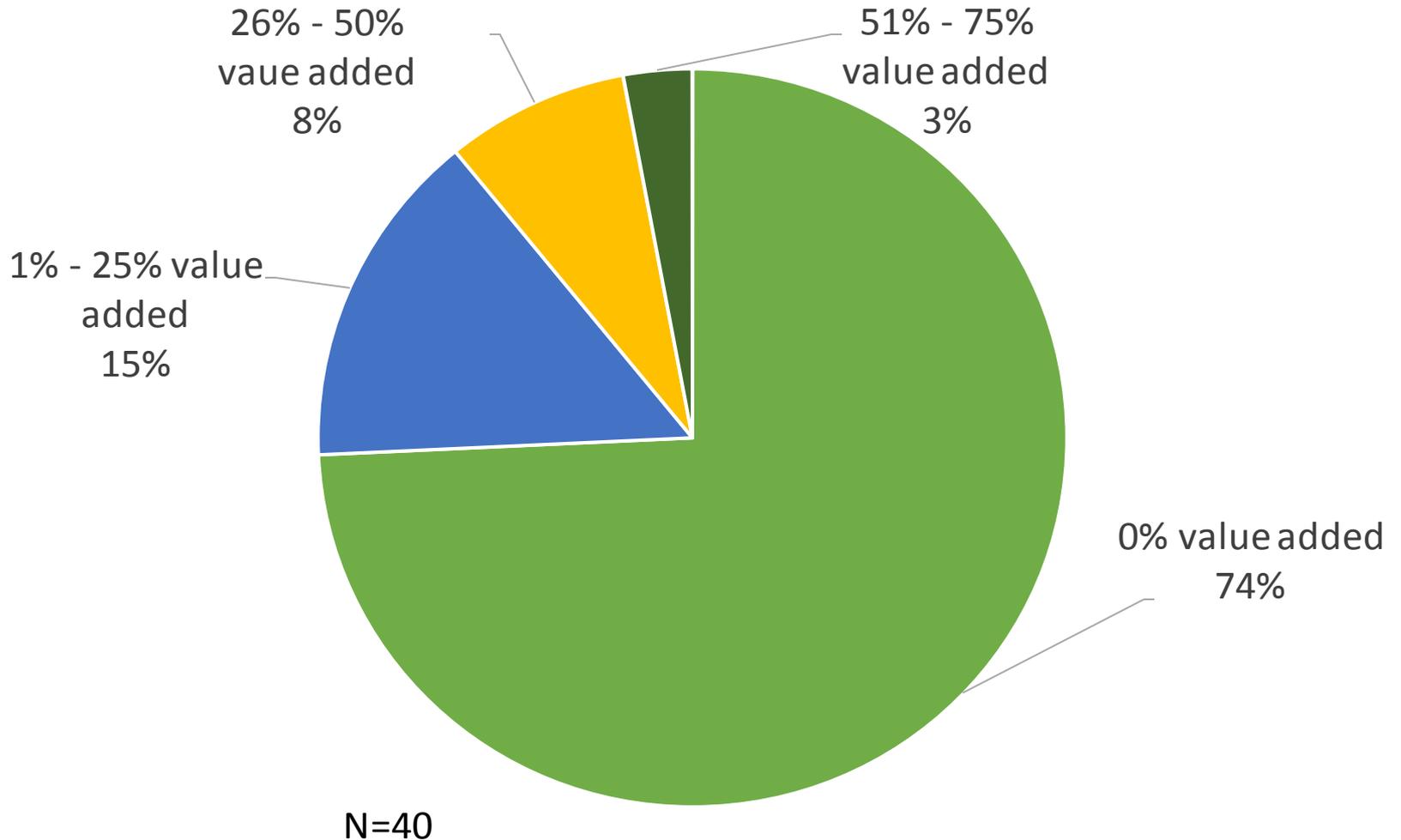


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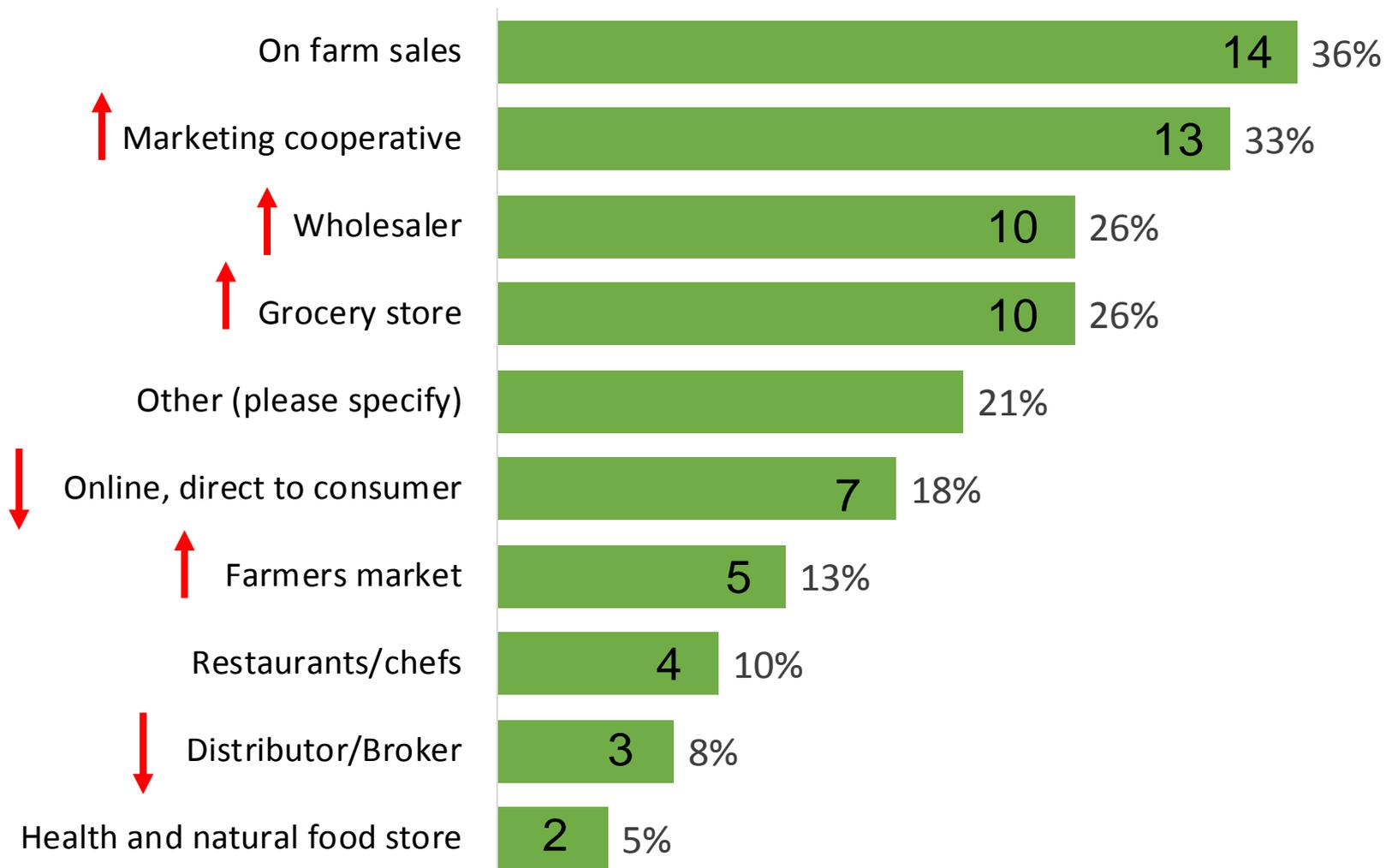
The 2015/16 marketing season

Percentage of value added in the gross annual sale figure



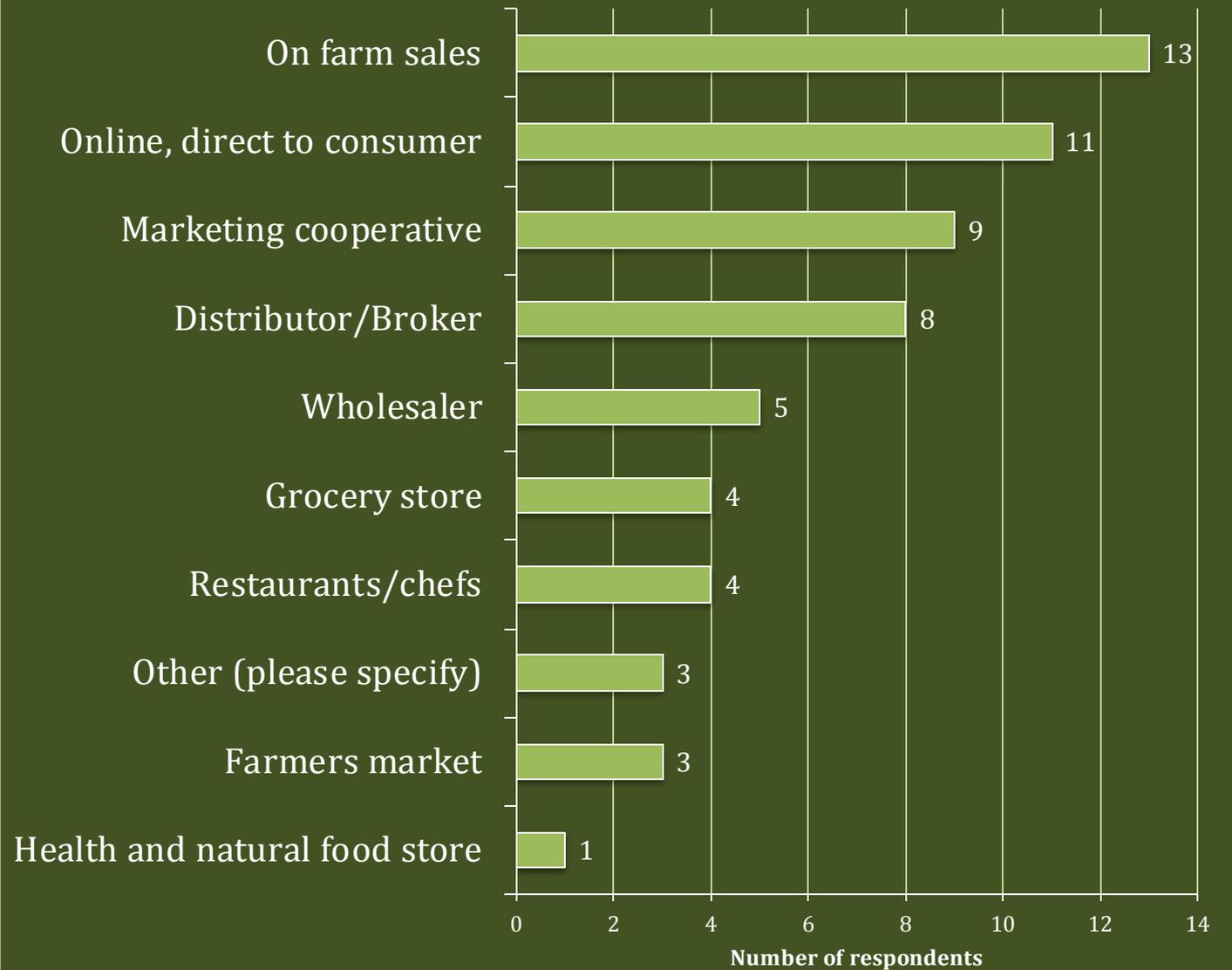
The 2015/16 marketing season

Market outlets



The 2012 marketing season

Market outlets and prices



The 2015/16 marketing season

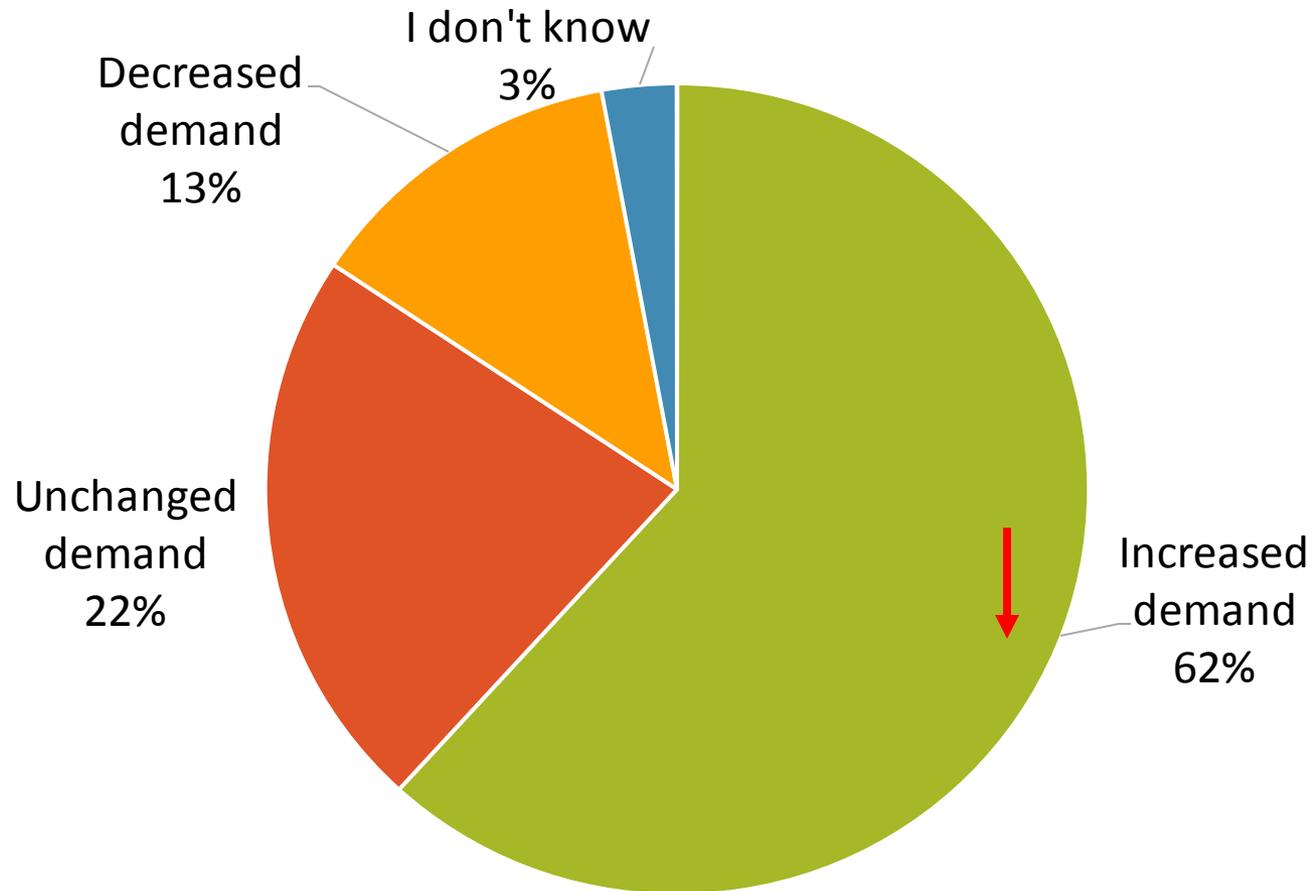
Prices

Outlet	Price range
Marketing cooperative	\$1.90 - \$4
Farmers market	\$2-\$7
Restaurants/chefs	\$3.50-\$5.50
Distributor/Broker	\$0.75-\$3.25
Health and natural food store	\$4.25
Grocery store	\$2-\$6
Wholesaler	\$1-\$5.80
Online, direct to consumer	\$3.50 - \$6.85
On farm sales	\$2-\$7

N=39

The 2015/16 marketing season

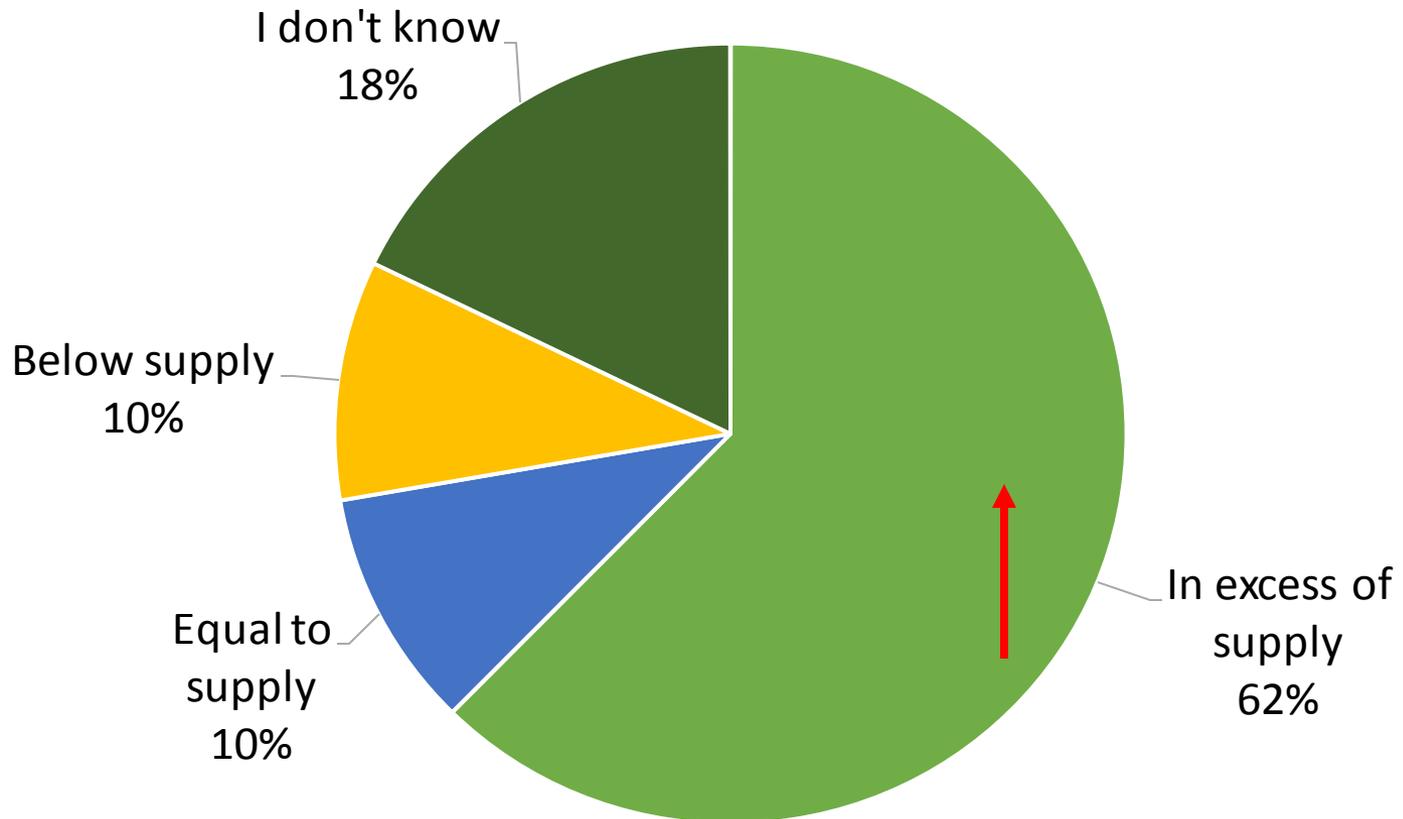
Demand for fresh chestnuts compared to previous year



N=40

The 2015/16 marketing season

Current demand for fresh chestnuts



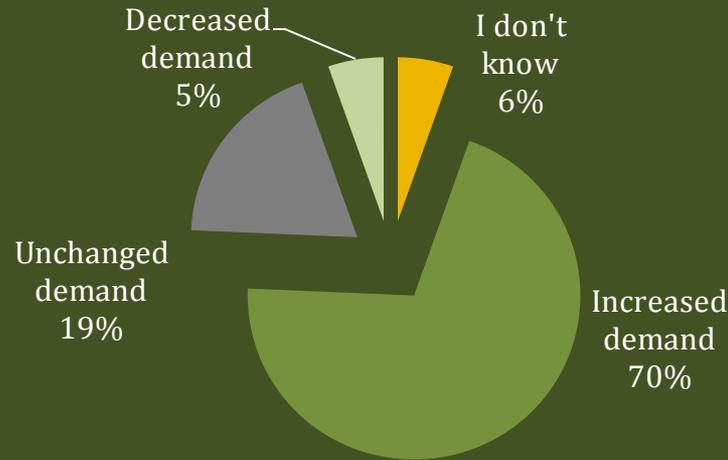
N=40

The 2012 marketing season

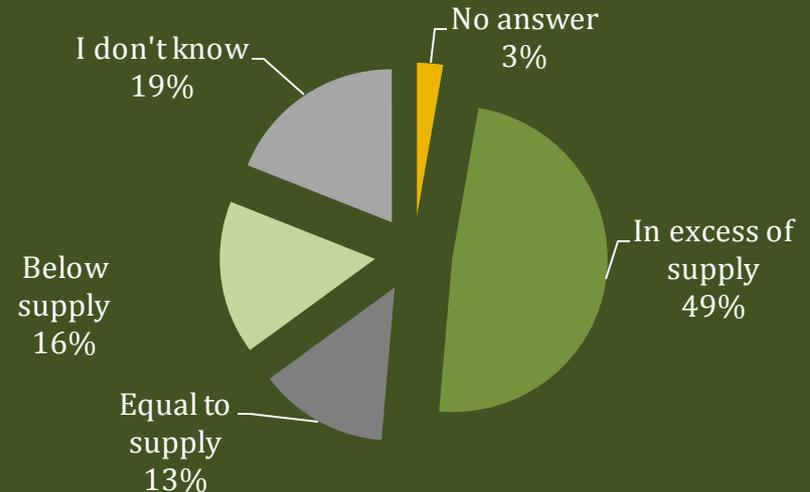
Demand for fresh chestnuts in 2012 compared to 2011

Demand for fresh chestnuts in 2012

N=37

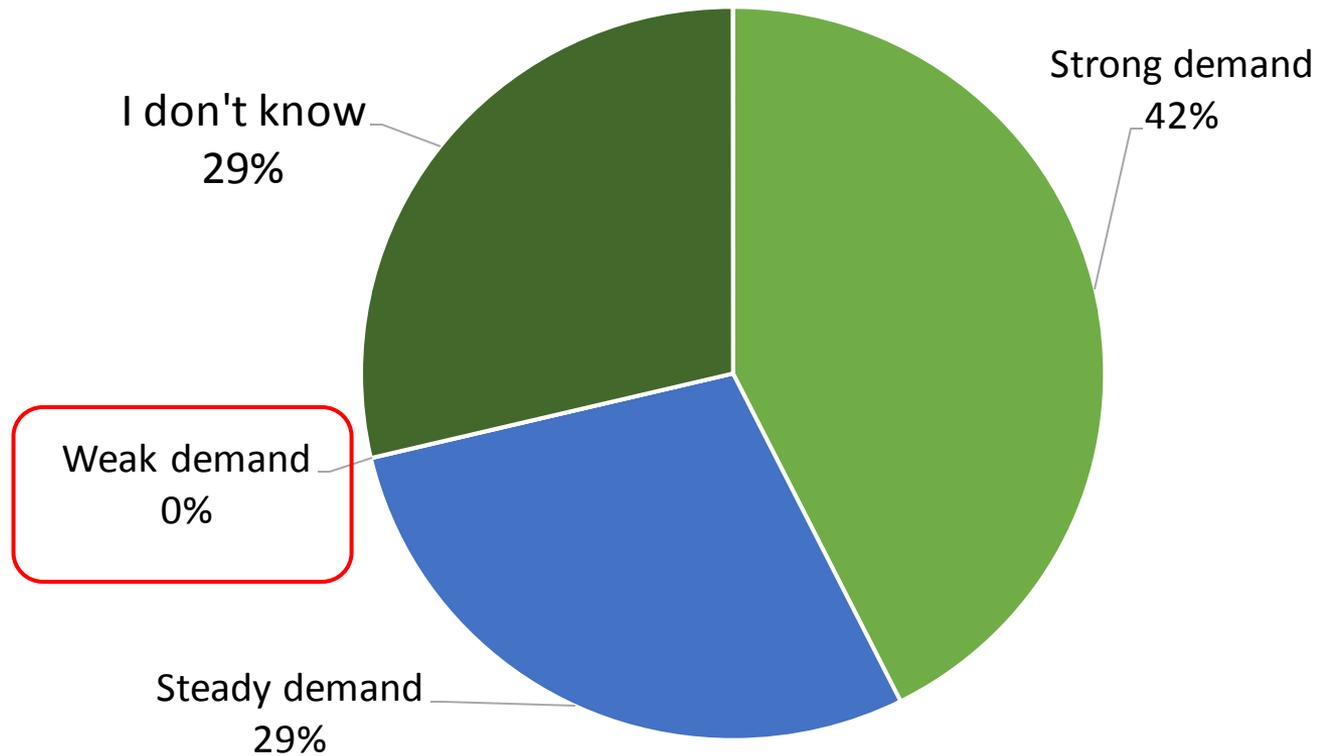


Current demand of fresh chestnuts in 2012



The 2015/16 marketing season

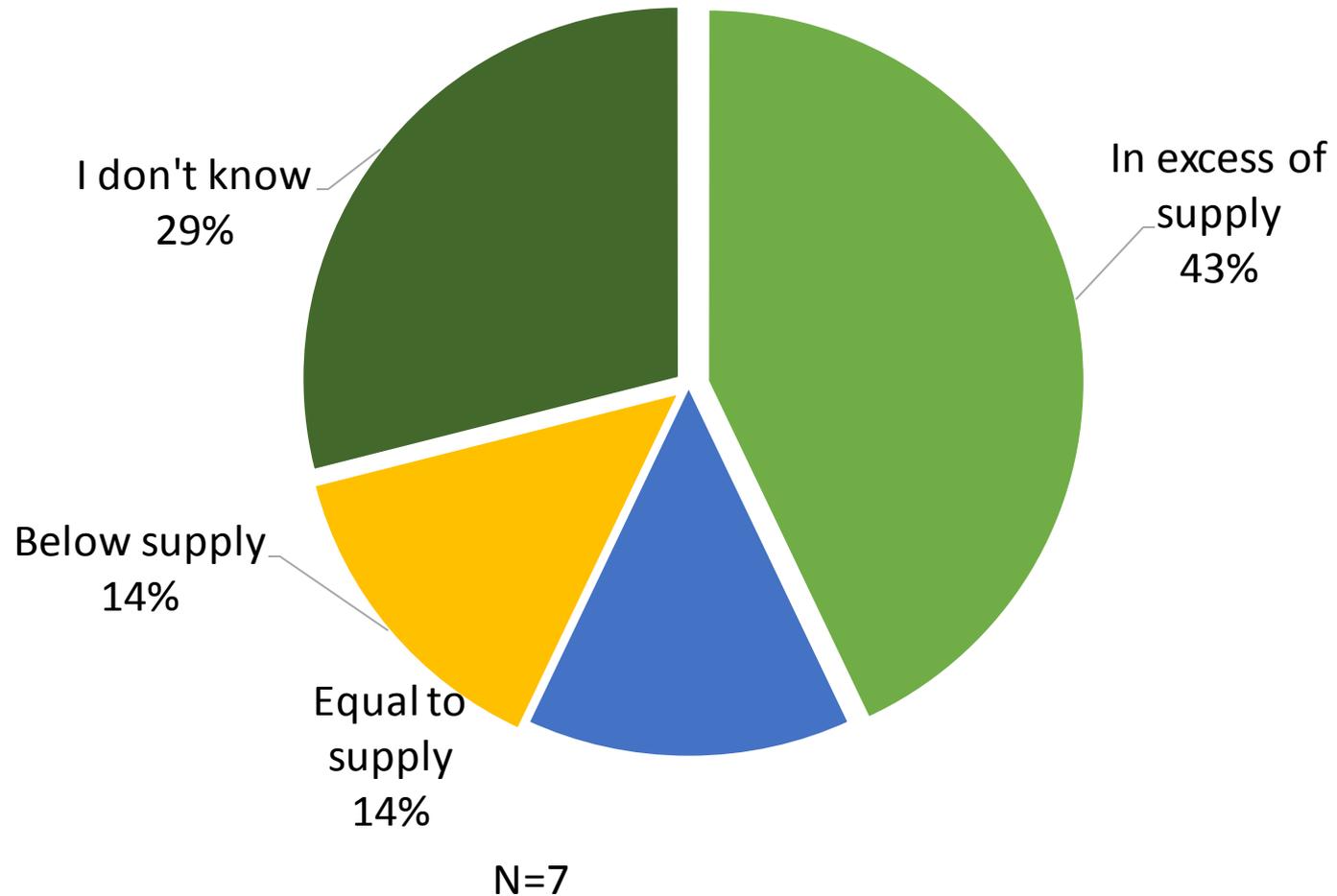
Current demand for value added products



N=7

The 2015/16 marketing season

Demand for value added products



Results – Yield Comparison, Yield Changes Over Time

5 Years of Data - Average Nut Yields – kg and lbs

Cultivar**	2008	2009	2010	2011	4 Year Avg Yield (kg)	4 Year Avg Yield (lb)	2015	2015
	(age 9)	(age 10)	(age 11)	(age 12)			(age 16) kg	(age 16) lbs
	Mean	Mean	Mean	Mean			Mean	Mean
Colossal ###	26.64	39.95	54.98	46.73	42.1	92.6	xxx	xxx
Qing	18.99	29.35	30.09	17.71	24.0	52.8	42.9	94.4
Amy ###	11.72	21.84	20.78	23.86	19.6	43.1	xxx	xxx
NC8 ###	7.35	24.68	19.30	xxx	17.1	37.6	xxx	xxx
**Eaton	13.08	14.43	17.53	14.15	14.8	32.6	34.6	76.1
Sleeping Giant	5.43	12.76	13.01	13.80	11.3	24.9	29.9	65.8
Homestead	5.82	11.68	10.76	4.57	8.2	18.0	20.9	46.0
Mossbarger	5.02	8.99	11.37	6.59	8.0	17.6	26.7	58.7
Willamette ###	2.14	7.83	11.27	10.08	7.8	17.2	xxx	xxx
OK-Kwang	2.50	6.44	11.63	6.08	6.7	14.7	20.1	44.2
Peach	2.28	8.18	7.08	7.15	6.2	13.6	32.0	70.4
Hong Kong	xxx	0.4	1.2	4.8	2.1	4.7	17.8	39.2
Gideon	1.1	4.3	1.6	9.1	4.0	8.9	21.9	48.2
Kohr	0.2	2.2	3.6	1.6	1.9	4.2	14.77	32.5
Rainfall (mm)	1433	1347	1390	982			774	

** By 2015 only 2 Eaton Trees were still alive in the cultivar trial

no data collected in 2015

Huge yield increases from age 12 to age 16

Chestnut Cultivar Trial Results

3 Year Average Nut Weight – grams, plus 2015

Cultivar	2009	2010	2011	3 Year Average grams	2015	2015 yield in lbs
	Mean	Mean	Mean		Mean	
Qing	12.8	17.35	19.0	16.3	14.6	94.4
OK-Kwang	15.2	17.7	15.8	16.2	15.4	44.2
Peach	14.5	16.5	14.4	15.1	14.9	70.4
Mossbarger	14.4	14.8	16.0	15.1	15.1	58.7
Eaton	14.5	13.4	15.5	13.6	12.7	76.1
Colossal	13.9	15.6	11.5	14.5	xxx	xxx
Homestead	10.6	14.1	14.9	13.2	14.5	46
Sleeping Giant	12.0	14.2	12.3	12.8	13.7	65.8
Willamette	6.8	11.3	12.3	10.1	xxx	xxx
NC8	9.3	11.0	xxx	10.1	xxx	xxx
Amy	9.4	11.6	8.7	9.9	xxx	xxx
Hong Kong	13.6	15.6	13.6	14.3	11.8	39.2
Gideon	16.4	16.2	12.0	14.9	12.1	48.2
Kohr	16.9	15.7	17.3	16.6	17.1	32.5

➤ Cultivars averaging 15 grams or larger are jumbo in E. USA

➤ Bring highest prices in market

Summary

1. Unfortunate gap in data for ages 12-14 on chestnut cultivar performance
2. Multi-year cultivar trial data reveals significant differences among cultivars for nut size and nut yield
3. Cultivar yields increase dramatically between ages 8 and 9, **major jump from age 12 to 16**
4. Information obtained from this research is being utilized as the basis for current cultivar recommendations in Missouri and surrounding states
5. More regional trials are needed to expand inference space

Thank You!



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