



Supplement of

People's knowledge and perceptions of *Trachycarpus fortunei* (Chinese windmill palm) invasions and their management in Ticino, Switzerland

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Survey (translated from Italian to English for publication)

I am environmental science student at the University of Lausanne.

For my bachelor's project, I am conducting research related to a specific palm tree in Ticino. I am especially interested in people's opinion on the presence of this palm tree in the region. Participation is on a voluntary basis, and as a participant you are free to stop the survey at any time.

To carry out my research I would be delighted if you could answer this short survey anonymously.

Thanks in advance.

Average length: 6-8 minutes

***Required field**

SECTION 1

Gender*

- Female
- Male
- Prefer not to say

What is your age? *

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

What is your highest education level? *

- Elementary school
- Secondary school
- High school
- Trade/technical/vocational/apprenticeship training
- Bachelor or equivalent
- Master or equivalent
- Doctoral or equivalent
- Other

City of residence (provide a post code or name)? * [Answer box](#)

SECTION 2

Do you know what is a palm tree? *

- Yes
- No

If yes, can you specifically name the common palm tree in your area? * [Answer box](#)

The most common palm in Ticino's gardens is the Fortune palm, also commonly called the "Ticinese" palm. It is distinguished by its windmill shape.

Do you have Fortune/Ticinese palm in your garden? *

- Yes [go to section 3](#)
- No [go to section 4](#)
- I don't have a garden [go to section 4](#)

SECTION 3

How many "Ticinese" palm do you have in your garden? *

- 1
- 2-5
- 5-10
- More than 10

Are these palm trees checked /cared for in your garden? *

- Yes
- No

If yes, how often are they checked /cared of?

- 1-2 times a year
- 3-4 times a year
- More than 4 times a year
- Other (specify)_____

How are palm trees taken care of/managed? *

- The fruits are removed
- Young seedlings are removed
- Old leaves are cut off
- Other (specify)_____

In my garden the palm tree...*

- Was already there when I moved in
- I planted it there (or a gardener) while I lived there
- It arrived on its own
- Other (specify)_____

Have you noticed unwanted/unplanted Fortune palm trees in your garden? *

- Yes
- No

If yes, what did you do?

- I uprooted it
- I cut it down
- I sold it
- Nothing, I left it where it is
- Other (specify)_____

SECTION 4

Have you seen Fortune/ Ticinese palm trees in your neighbourhood? *

- Yes
- No [go to section 5](#)
- Unsure [go to section 5](#)

If yes, are they ...

- Vary rare
- Rare
- Moderate
- Common
- Very common

In which landscape(s) have you seen them? *

- Other people's gardens
- Parks
- Along rivers
- Along lakes
- Natural forest areas
- Woods
- At the edges along the roads
- Other (specify)_____

SECTION 5

Do you like the Fortune/ Ticinese palms that you see around you? *

- Yes
- No
- I don't know/unsure

They give you a sense of ... (multiple answers possible) *

- Calm
- Welfare
- Peace
- Exotic
- Stress
- Happiness
- Anxiety
- Malaise
- Anger
- None of the above
- Other _____

Do you think that having palm trees in Ticino is ... (multiple possible answers)? *

- Very problematic
- Problematic
- Ok
- Positive
- Very positive
- Other _____

SECTION 6

Do you know what an invasive plant is? *

- Yes
- No

If yes, can you define "invasive species" briefly? [Answer box](#)

What damage do you think invasive plants can cause?*

- Compromise natural environments and ecosystems
- Reduce yields in agriculture and forestry
- They damage or destabilize infrastructure
- Can endanger human health
- Cause damage to the economy
- Reduces the biodiversity of local ecosystems
- Other _____

In your opinion, is the Fortune/ "Ticinese" palm an invasive plant? *

- Yes
- No
- Unsure/do not know

It is true that the Fortune palm, commonly known as the Fortune/ Ticinese palm, is an invasive plant. It disperses spontaneously in the surrounding natural areas and damages the local biodiversity.

Main impacts:

- Dense stands can prevent local rejuvenation of native woody species and lead to undergrowth depletion;
- Dense stands or stands mixed with other species can alter soil composition;
- It creates problems for the protective function of forests by facilitating soil erosion due to its small, short roots.
- Fibres covering the stem can increase the strength of forest fires.

SECTION 7

Do you think more should be done to control the spread of invasive palm trees in Ticino? *

- Yes
- No
- I don't know

How do you think they should be managed? * (multiple possible answers)

- Better information for people
- Forcing people to manage it in their gardens
- preventing the sale of palm trees
- A better prevention campaign by the canton
- I don't think it should be managed
- Other _____

Do you have any other opinions to add regarding palm trees in Ticino? [Answer box](#)

Contingency tables for significant Chi-squared and LR ratio test results

Age group * like. *T. fortunei*: Crosstabulation

			No	Unsure	Yes	Total	
age group	18-24	Count	13	26	25	64	128
		Expected Count	9.7	43.1	15.0	60.2	128.0
	25-34	Count	4	28	7	25	64
		Expected Count	4.9	21.6	7.5	30.1	64.0
	35-44	Count	8	21	8	25	62
		Expected Count	4.7	20.9	7.3	29.2	62.0
	45-54	Count	7	31	7	46	91
		Expected Count	6.9	30.6	10.7	42.8	91.0
	55-65	Count	4	42	8	47	101
		Expected Count	7.7	34.0	11.8	47.5	101.0
	più di 65	Count	1	16	2	22	41
		Expected Count	3.1	13.8	4.8	19.3	41.0
Total		Count	37	164	57	229	487
		Expected Count	37.0	164.0	57.0	229.0	487.0

Education * Like *T. fortunei*: Crosstabulation

			No	Unsure	Yes	Total	
education	bachelor o equivalente	Count	8	36	17	49	110
		Expected Count	8.4	37.0	12.9	51.7	110.0
	formazione commerciale / tecnica / professionale	Count	15	100	13	119	247
		Expected Count	18.8	83.2	28.9	116.1	247.0
	liceo	Count	10	8	14	35	67
		Expected Count	5.1	22.6	7.8	31.5	67.0
	postgrad	Count	4	20	13	26	63
		Expected Count	4.8	21.2	7.4	29.6	63.0
Total		Count	37	164	57	229	487
		Expected Count	37.0	164.0	57.0	229.0	487.0

Gender * Know what an IAS is: Crosstabulation

			No	Yes	Total
gender	Women	Count	48	272	320
		Expected Count	40.7	279.3	320.0
	Men	Count	14	153	167
		Expected Count	21.3	145.7	167.0
Total		Count	62	425	487
		Expected Count	62.0	425.0	487.0

Gender * Know *T. fortunei* is invasive: Crosstabulation

			No	Unsure	Yes	Total
gender	Women	Count	35	64	221	320
		Expected Count	36.1	51.3	232.6	320.0
	Men	Count	20	14	133	167
		Expected Count	18.9	26.7	121.4	167.0
Total		Count	55	78	354	487
		Expected Count	55.0	78.0	354.0	487.0

Age * Know what an IAS is: Crosstabulation

			No	Yes	Total
age group	18-24	Count	26	102	128
		Expected Count	16.3	111.7	128.0
	25-34	Count	12	52	64
		Expected Count	8.1	55.9	64.0
	35-44	Count	8	54	62
		Expected Count	7.9	54.1	62.0
	45-54	Count	6	85	91
		Expected Count	11.6	79.4	91.0
	55-65	Count	7	94	101
		Expected Count	12.9	88.1	101.0
	> 65	Count	3	38	41
		Expected Count	5.2	35.8	41.0
Total		Count	62	425	487
		Expected Count	62.0	425.0	487.0

Age * Know *T. fortunei* is invasive: Crosstabulation

			No	Unsure	Yes	Total
age group	18-24	Count	11	40	77	128
		Expected Count	14.5	20.5	93.0	128.0
	25-34	Count	7	13	44	64
		Expected Count	7.2	10.3	46.5	64.0
	35-44	Count	7	5	50	62
		Expected Count	7.0	9.9	45.1	62.0
	45-54	Count	11	9	71	91
		Expected Count	10.3	14.6	66.1	91.0
	55-65	Count	11	8	82	101
		Expected Count	11.4	16.2	73.4	101.0
	> 65	Count	8	3	30	41
		Expected Count	4.6	6.6	29.8	41.0
Total		Count	55	78	354	487
		Expected Count	55.0	78.0	354.0	487.0

Education * Know *T. fortunei* is invasive: Crosstabulation

			No	Unsure	Yes	Total
education	bachelor o equivalente	Count	11	20	79	110
		Expected Count	12.4	17.6	80.0	110.0
	formazione commerciale / tecnica / professionale	Count	32	31	184	247
		Expected Count	27.9	39.6	179.5	247.0
	liceo	Count	8	22	37	67
		Expected Count	7.6	10.7	48.7	67.0
	postgrad	Count	4	5	54	63
		Expected Count	7.1	10.1	45.8	63.0
Total		Count	55	78	354	487
		Expected Count	55.0	78.0	354.0	487.0

Gender * Manage *T. fortunei*: Crosstabulation

			No	Unsure	Yes	
gender	Women	Count	34	86	200	320
		Expected Count	37.5	74.9	207.6	320.0
	Men	Count	23	28	116	167
		Expected Count	19.5	39.1	108.4	167.0
Total		Count	57	114	316	487
		Expected Count	57.0	114.0	316.0	487.0