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PRELIMINARY ASSESSMENT OF SOME MORPHOLOGICAL TRAITS OF JUJUBE FRUITS PRODUCED IN SOUTHERN OLTENIA

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Abstract

This work aimed to analyse the main morphological characteristics of jujube fruits (Ziziphus jujuba Mill.) produced in a small orchard in Southern Oltenia, Romania. Ten genotypes were evaluated for fruit key morphological traits (height, diameter, weight, and shape index). Fruit height varied from 22.37 mm (R5) to 41.79 mm ('Lang' cv.), while fruit diameter ranged from 17.77 mm (S1) to 35.74 mm ('Lizao' cv.). Total fruit weight ranged from 4.13 g (Jurilovca) to 22.52 g ('Lizao' cv.), and the shape index varied between 0.96 ('Fengmiguan' cv.) and 1.82 (S1). The analysis revealed a high coefficient of variability in total fruit weight, ranging from 15.73% (Fellini selection) to 35.25% (R5), indicating significant morphological diversity among the genotypes. The observed variability can be attributed mainly to the genetic characteristics of the genotypes, with additional influences from pedoclimatic conditions and applied orchard management practices. These results highlight the morphological diversity of jujube fruits in Southern Romania and underscore the role of genetic and environmental factors in fruit development.

Key words*: jujube, biometric analysis, cultivar, genotype.*

INTRODUCTION

Jujube, also known as Chinese date (*Ziziphus jujuba* Mill.), belongs to the Rhamnaceae family and the *Ziziphus* genus. It is one of the oldest cultivated fruit tree species in the world, with a history spanning over 7,000 years, and holds significant economic, ecological, and social importance (Liu et al., 2020; Xu et al., 2016; Zhang et al., 2024), with over 900 cultivars worldwide (Liu, 2018). Native to China, specifically the Central and Southern regions of the Yellow River basin (Li et al., 2024; Zhang et al., 2024; Poșta et al., 2021), the species is highly adaptable to climatic conditions, thriving in arid and semi-arid areas of temperate and subtropical climates (Liu, 2006; Khadivi et al., 2021). The nutritional content of jujube fruits, their use in traditional medicine, and application in the food industry further contribute to their economic importance (Shahrajabian et al., 2020; Ma et al., 2021). Jujubes are highly precocious, often setting fruit the second year after planting and sometimes even during the year of planting or grafting (Yao, 2013; Liu, 2006). The fruit is a drupe, with a crisp, fleshy, juicy, and sweet mesocarp (which varies by cultivar), a thin epicarp, and a hard, sharp endocarp containing none to two seeds (Yao, 2013; Liu, 2006). Jujube fruits differ in shape, colour, size, and organoleptic characteristics, influenced by genetic traits, location, and the pedoclimatic attributes of the cultivation area. Jujubes are classified into five groups: for fresh consumption (table cultivars), drying, candied, multipurpose, and ornamental cultivars (Liu, 2006). Current global trends focus on producing large fruits that meet consumer demands, are resilient to climate change, and can thrive on marginal, less-productive land. Additionally, resistance to pests and diseases, preserve their qualities for extended periods (whether fresh or processed), and ultimately generate profit. Therefore, understanding the primary morphological characteristics of fruits

is crucial for selecting the most suitable cultivars based on their intended use. Gaius Plinius Secundus (AD 23-79), commonly known as Pliny the Elder, documented in his *Historia Naturalis* that the Roman Emperor Octavian Augustus's counselor introduced the Chinese jujube from Syria to Italy, from where it subsequently spread to other Mediterranean countries (Stănică et al., 2020; Stănică, 2019; Stănică, 1997). In Romania, the Chinese jujube exists in a semi-spontaneous state solely in the Dobrogea region, situated between the Danube River and the Black Sea (Stan et al., 2021). Notably, the populations of Chinese jujube found in Romania are located near ancient sites with Greek, Roman, and Byzantine ruins, suggesting that these ancient civilizations may have played a significant role in the introduction of the Chinese jujube to the Mediterranean basin (Stănică, 2009). Since 1996, research focused on the propagation, cultivation practices, and genetic improvement of Chinese jujube genotypes has been conducted at the Faculty of Horticulture, University of Agronomic Sciences and Veterinary Medicine (USAMV) of Bucharest (Stoli & Stănică, 2021). Currently, jujube is not extensively cultivated in Romania, except in a limited number of experimental research stations, institutes, and educational fields. However, more people are beginning to appreciate and cultivate jujube in private gardens. Currently, the most common cultivars in Romania include 'Xuancheng Jian' ('Xuanchengjianzao'/XCJ), 'Lizao' ('Linyilizao'/'Li'), 'Lang', 'Dongzao', and 'Hupingzao'. Khadivi et al. (2021) mention that the main goals of jujube breeding are increasing yield, fruit size, and flesh/stone ratio. Luo et al. (2024) highlight the key quality traits of the jujube fruit as crucial in jujube breeding. This study aimed to identify the main morphological characteristics of jujubes produced in Southern Oltenia and provide additional insights into the fruit characteristics of various jujube genotypes in Romania.

MATERIALS AND METHODS

Materials

Jujube fruits (100 fruits per genotype) were harvested at the full red stage (crisp and ripe) from an orchard in Bratovoești Commune, Dolj County, Oltenia region, Romania (44°07'N 23°54'E). Ten jujube fruit trees were selected for the study: cultivars 'Fengmiguan', 'Lang', 'Xuancheng Jian', 'Dabaizao', and 'Lizao', Fellini selection, and K1, Jurilovca, R5, and S1 genotypes. The jujube trees are 4 years old, with a slender spindle canopy (cone shape), a support system, and planting distances of 1.5 m between plants within a row. Grass coverage with a mixture of species, respectively *Festuca pratensis*, *Phleum pratense*, *Festuca rubra*, *Dactylis glomerata, Agrostis gigantea, Festulolium, Bromus inermis, Lolium hybridum, Lolium multiflorum, and Lolium perenne*, is used to improve soil quality. The orchard is irrigated using a sprinkler system, with no fertilizers or phytosanitary treatments applied.

Literature review regarding some of the studied genotypes

- 'Xuancheng Jian' is a cultivar suitable for candied fruit but can also be eaten fresh. Originating from Anhui Province, China, it has a history of over 200 years (Liu & Wang, 2009). This late-ripening cultivar (harvested in late September to early October) exhibits high resistance to fruit cracking. The fruit is medium to large, oblong, and column-shaped with a pointed tip, averaging 22.5 g in weight. The cultivar is known for its early bearing, high yield, and high fruit set (Li et al., 2013);
- 'Fengmiguan' (known as 'Honey Jar' in the US) originates from Shaanxi Province and reaches the crisp maturity stage in mid-September. It is an early to mid-ripening cultivar that is highly resistant to diseases and exhibits light fruit cracking. The fruits are small, nearly round, averaging 9.2 g in weight, and are irregular in size. It is considered one of the sweetest jujube cultivars (Wang et al., 2017);
- 'Lizao' originates from Shanxi Province and has a cultivation history of over 3,000 years. According to Yao S. in Karp & Gasic (2024), it may be synonymous with 'Linyi Li', 'Shanxi Li', and 'Redlands 4' cultivars, as they share identical DNA sequences with 'Li' based on genotyping with SNP markers (Sapkota et al., 2024). The tree has moderate vigour, bears early, and ripens in late September. The fruits are exceedingly large, obovate, and globose to

ovoid, with an average weight of 31.6 g (up to 40 g) and irregular sizes. The fruit is crisp, juicy, and sweet. It is resistant to cracking, making it suitable for intensive planting due to its moderate vigour. 'Lizao' has the largest cultivation area and widest distribution among middle-late ripening table cultivars, though it has recently been surpassed by the 'Dongzao' cultivar in China (Zhang et al., 2024);

- 'Lang' cultivar, according to Yao S. in Karp & Gasic (2024), may be synonymous with the Chinese 'Junzao' cultivar, as both share identical DNA sequences based on genotyping with SNP markers (also mentioned by Sapkota et al., 2024). Originating from Shanxi Province, it has a cultivation history of over 1,000 years. The tree is vigorous, characterized by a strong central trunk and a conical-shaped crown, bearing fruit early. The fruits are pear-shaped, late-ripening, and range from medium to large (15.1–18.2 g, up to 26.3 g). They have a mild flavour, distinguishing them from the Chinese 'Langzao' cultivar, which is column or oval-shaped and averages 12.1 g. This cultivar is suitable for both drying and multipurpose use, although it is highly susceptible to fruit cracking;
- 'Dabaizao', according to Cossio & Bassi (2013), is a vigorous cultivar with medium productivity and low fruit uniformity, ripening toward the end of September or early October. According to Li et al. (2013), it is native to Hubei Province and is primarily used as a table cultivar for fresh consumption. The fruits are irregular in shape and size, weighing between 20 g and 40 g;
- Jurilovca is a wild type of *Ziziphus jujuba*, or maybe *Ziziphus acido-jujuba* from the Dobrogea region in South-East Romania. This biotype has been described by several researchers (Stănică, 2009; 2016; 2019; Stoli & Stănică, 2023; Stoli, 2023) in terms of its morphological and nutritional characteristics. In Romania, it is primarily used as a rootstock (Stănică, 2009; Stoli et al., 2022);
- Fellini is a selection of unknown origin (probably Chinese) propagated and cultivated by an Italian fruit grower from Gambetolla, Italy;
- R5 genotype may represent a selection from Russia, potentially of Chinese origin, identified as Ruski 5 (Russian 5/L5).

Climatic data

The experimental location is characterized by a continental climate with an annual precipitation of 500 mm, with most of this occurring in May and June, and smaller amounts in August and September. The temperature range exceeds 25°C, with hot summer days exceeding 35°C. Based on hardiness zones, the location is classified as zone 7b. Climate factors, including temperature, humidity, light intensity, and precipitation, influence fruit development. For example, higher temperatures have been observed to decrease fruit size and hardness (Gómez-Devia & Nevo, 2024), while heavy rainfall can cause fruit cracking, a common occurrence in jujube fruits.

Methods

Fruit measurements, including height, diameter, and total weight, were recorded. Fruit height and diameter were determined using a high-precision electronic calliper (precision of 0.01 mm), while total fruit weight was measured with a KERN EMB 200-2 analytical balance (precision of 0.01 mg). The fruit shape index (FSI) was calculated as the ratio between fruit height and diameter. According to Liu & Wang's (2009) classification, jujube fruit shapes are categorized as follows: oblate for index values <0.90, globose or nearly globose for index values between 0.90 and 1.10, oblong globose for index values between 1.10 and 1.30, cylindrical for values between 1.30 and 1.60, and long cylindrical for index values >1.60.

Statistical analysis

Statistical analysis was conducted using IBM SPSS Statistics 26 software. One-way ANOVA and Duncan's multiple range tests ($p < 0.05$) were applied. Pearson correlation analysis was used to identify relationships among the measured morphological traits, while cluster analysis helped determine possible similarities between genotypes. The coefficient of variation (CV) was also calculated using the formula CV = (SD/X) *100.

RESULTS AND DISCUSSIONS

The main jujube analysed morphological characteristics are shown in Table 1.

Statistical analysis of the obtained data (one-way ANOVA) revealed significant differences

between the jujube genotypes ($p < 0.05$), as indicated by the Duncan multiple range tests. The size, shape, and pattern of jujube fruits are shown in Figure 1.

Table 1. Morphological characteristics of jujube fruits

Genotype	Descriptive statistics*	Height (mm)	Width (mm)	Total weight (g)	Shape index (FSI)
Fellini selection	Mean±SD	29.93±1.71^{e**}	30.00±2.02^{c}	13.29±2.09^{c}	1.00±0.06^{fg}
	Variation limits	26.85-34.74	26.26-35.13	9.90-18.20	0.86-1.11
	CV%	5.71	6.73	15.73	6.00
'Fengmiguan'	Mean±SD	25.77±1.71^{f}	26.92±1.61^{d}	9.66±1.60^{d}	0.96±0.05^{g}
	Variation limits	22.57-29.94	23.90-30.15	7.20-12.40	0.87-1.10
	CV%	6.63	5.98	16.56	5.20
K1	Mean±SD	22.37±1.17^{g}	20.98±1.87^{f}	4.88±1.01^{e}	1.07±0.08^{e}
	Variation limits	20.41-24.85	16.13-24.60	2.60-7.50	0.94-1.29
	CV%	5.23	8.91	20.69	7.47
'Lang'	Mean±SD	41.79±3.34^{a}	29.98±2.20^{c}	17.15±2.97^{b}	1.40±0.08^{c}
	Variation limits	34.14-46.55	24.68-33.84	10.30-22.20	1.24-1.60
	CV%	7.99	7.33	17.31	5.71
S1	Mean±SD	32.28±3.01^{d}	17.77±1.38^{h}	4.71±0.96^{e}	1.82±0.16^{a}
	Variation limits	25.53-37.38	15.81-20.11	2.70-6.60	1.53-2.20
	CV%	9.32	7.76	20.38	8.79
Jurilovca	Mean±SD	23.14±1.58^{g}	19.46±1.36^{g}	4.13±0.78^{e}	1.19±0.06^{d}
	Variation limits	20.33-27.25	16.70-22.84	2.80-6.10	1.09-1.37
	CV%	6.82	6.98	18.88	5.04
'Xuancheng Jian'	Mean±SD	40.36±2.18^{a}	25.47±2.82^{e}	12.32±2.67^{c}	1.60±0.17^{b}
	Variation limits	36.23-44.68	21.07-33.50	7.90-19.40	1.14-1.94
	CV%	5.40	11.07	21.67	10.62
R5	Mean±SD	35.60±5.37^{c}	28.93±3.87^{c}	13.90±4.90^{c}	1.23±0.08^{d}
	Variation limits	26.12-43.45	22.15-34.38	7.40-21.90	1.11-1.35
	CV%	15.08	13.37	35.25	6.50
'Dabaizao'	Mean±SD	33.70±1.96^{d}	33.15±2.45^{b}	16.55±3.24^{b}	1.02±0.02^{efg}
	Variation limits	31.84-36.27	30.87-36.46	12.80-20.60	0.99-1.03
	CV%	5.81	7.39	19.57	1.96
'Lizao'	Mean±SD	37.64±2.99^{b}	35.74±4.17^{a}	22.52±7.08^{a}	1.06±0.07^{ef}
	Variation limits	32.17-41.37	29.28-42.31	12.40-35.70	0.94-1.17
	CV%	7.94	11.66	31.43	6.60

*Mean ± Standard Deviation; Variation limits: Minimum-Maximum; CV%-Coefficient of variation; **Different letters indicate statistically significant differences between the analysed parameters ($p<0.05$).

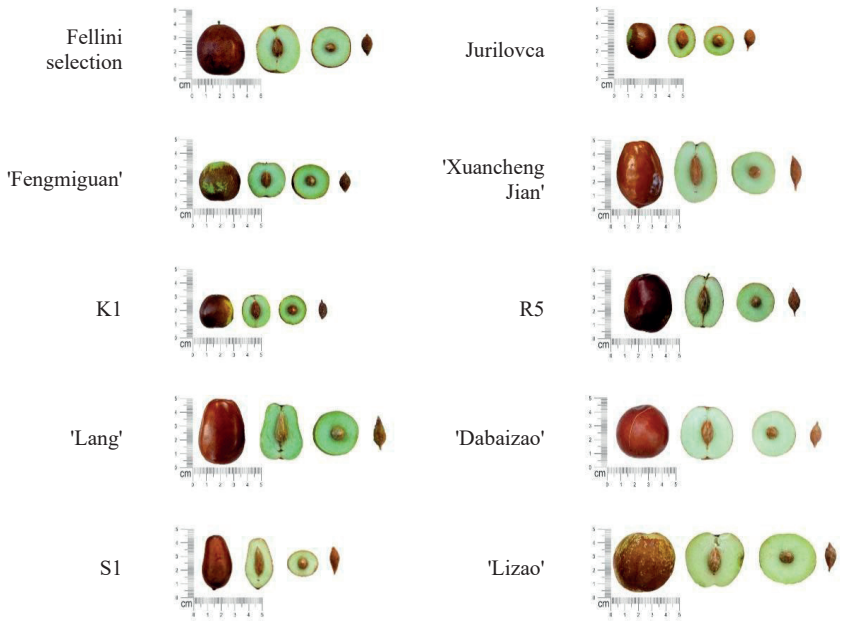

Figure 1. Fruit morphological traits of the studied jujube genotypes (single fruit, longitudinal section, cross-section, and kernel)

The highest fruit height was observed in the 'Lang' cultivar (46.55 mm), while the lowest was found in Jurilovca (20.33 mm). The coefficient of variation for fruit height ranged from 5.23% (K1) to 15.08% (R5). Fruit diameter varied from 15.81 mm (S1) to 42.31 mm ('Lizao'), with coefficients of variation ranging from 5.98% ('Fengmiguan') to 13.37% (R5). The total fruit weight ranged from 2.60 g (K1) to 35.70 g ('Lizao'), with coefficients of variation between 15.73% (Fellini selection) and 35.25% (R5).

Șumălan et al. (2025) report an average fruit height of 39.30 mm, an average diameter of 26.10 mm, and a weight of 10.32 g for the 'Junzao' cultivar. In contrast, Stoli (2023) recorded a fruit height of 43.81 mm, a diameter of 37.03 mm, and a weight of 18.67 g for the same cultivar, which are lower values than those found for the 'Lang' cultivar in the present study. Regarding the Jurilovca selection, Șumălan et al. (2025) reported an average fruit height of 20.20 mm, an average diameter of 16.30 mm, and an average weight of 3.43 g, which are lower results compared to those obtained in this study, likely due to differing pedoclimatic conditions.

Stoli (2023), in a study on jujube genotypes cultivated in Dobrogea, Romania, reported three Jurilovca selections with fruit height ranging from 18.34 to 23.76 mm, fruit diameter from 16.75 to 20.33 mm, and fruit weight between 2.18 and 3.30 g. Stănică (2009) also noted fruit weights for two Jurilovca selections, ranging from 1.30 g to 1.35 g, which differ from the results found in this study. Poșta et al. (2021) observed two genotypes from Timișoara, Romania, with fruit heights ranging from 19.24 to 22.68 mm, diameters from 18.13 to 21.82 mm, and fruit weights between 5.47 and 6.13 g. Stănică and Vasile (2008) reported for the 'Xuancheng Jian' cultivar a fruit height of 36.9 mm, a diameter of 20/21 mm, and a fruit weight of 8.55 g, while Stoli (2023) found a fruit height of 41.00 mm, a diameter of 33.85 mm, and a fruit weight of 13.98 g - values differing from those identified in the present study under different cultivation conditions. For the 'Fengmiguan' cultivar, Stănică and Vasile (2008) recorded a fruit height of 27.00 mm, a diameter of 23/25 mm, and a fruit weight of 9.17 g, consistent with this study's results. Grygorieva et al. (2014) reported 28 jujube genotypes from Ukraine with fruit heights ranging from 20.73 to 44.84 mm, diameters from 16.64 to 38.87 mm, and fruit weights between 2.90 g and 20.99 g. Čizmović and Prenkić (2018) found that the 'Lang' and 'Li' cultivars had the highest fruit weights (24.32 g and 23.97 g, respectively). Esmail (2006) for the same cultivars in Giza, Egypt, found fruit heights between 40.70 and 43.30 mm, widths between 32.10 and 33.50 mm, and fruit weights between 16.51 and 19.42 g for 'Lang' cv. and fruit heights between 39.70 and 38.40 mm, widths between 33.10 and 33.70 mm, and fruit weights between 18.79 and 16.73 g for 'Li' cv., measured over two consecutive years. The highest coefficient of variation in this study was observed in the total fruit weight, while the lowest was found in the shape index, as confirmed by Șumălan et al. (2025). Regarding the shape index, according to Liu & Wang (2009), the Fellini selection, 'Fengmiguan', K1, 'Dabaizao', and 'Lizao' fall into the category of globose or nearly globose fruits. Jurilovca and R5 are categorized as oblong-globose fruits; 'Lang' and 'Xuancheng Jian' have cylindrical fruits, and S1 has an elongated cylindrical shape. Stoli (2023) reported a fruit shape index of 1.1 for Jurilovca selections and 1.2 for 'Xuancheng Jian' and 'Junzao'.

The correlation coefficients (Table 2) for all analysed fruits were $r = 0.933$ ($R^2 = 0.8913$) for the relationship between fruit diameter and total weight, $r = 0.728$ ($R^2 = 0.5299$) for the relationship between fruit height and total weight, $r = 0.509$ ($R^2 = 0.2586$) for the correlation between fruit height and diameter, and $r = 0.574$ ($R^2 = 0.3294$) for the correlation between height and shape index. Some genotypes also showed positive correlations between shape index and fruit height and width, respectively (Table 2). The Pearson correlation coefficients (r) quantify the degree of correlation between the analysed morphological parameters for each genotype and all jujube fruits by assessing the strength and direction of the linear relationship between the two variables. In contrast, R^2 represents the proportion of variance in the dependent variable that is explained by the independent variables.

Table 2. Pearson correlation coefficients between the analysed morphological traits of jujube fruits

Cultivar	Fruit parameter	Height	Width	Weight	Shape index
Fellini selection	Height	1	.502**	.687**	.365*
	Width	.502**	1	.956**	-.619**
	Weight	.687**	.956**	1	-.403**
	Shape index	.365*	-.619**	-.403**	1
'Fengmiguan'	Height	1	.654**	.790**	.516**
	Width	.654**	1	.903**	-.309*
	Weight	.790**	.903**	1	-.024
	Shape index	.516**	-.309*	-.024	1
K1	Height	1	.677**	.780**	-.142
	Width	.677**	1	.960**	-.819**
	Weight	.780**	.960**	1	-.677**
	Shape index	-.142	-.819**	-.677**	1
'Lang'	Height	1	.741**	.842**	.487**
	Width	.741**	1	.903**	-.225
	Weight	.842**	.903**	1	.045
	Shape index	.487**	-.225	.045	1
S1	Height	1	.494**	.881**	.639**
	Width	.494**	1	.672**	-.351
	Weight	.881**	.672**	1	.353
	Shape index	.639**	-.351	.353	1
Jurilovca	Height	1	.734**	.825**	.340*
	Width	.734**	1	.934**	-.387**
	Weight	.825**	.934**	1	-.169
	Shape index	.340*	-.387**	-.169	1
'Xuancheng Jian'	Height	1	.277	.431**	.232
	Width	.277	1	.903**	-.862**
	Weight	.431**	.903**	1	-.685**
	Shape index	.232	-.862**	-.685**	1
R5	Height	1	.894**	.933**	.483
	Width	.894**	1	.939**	.042
	Weight	.933**	.939**	1	.231
	Shape index	.483	.042	.231	1
'Dabaizao'	Height	1	.989**	.991**	-.812*
	Width	.989**	1	.978**	-.888*
	Weight	.991**	.978**	1	-.801
	Shape index	-.812*	-.888*	-.801	1
'Lizao'	Height	1	.803**	.837**	-.186
	Width	.803**	1	.973**	-.732*
	Weight	.837**	.973**	1	-.643*
	Shape index	-.186	-.732*	-.643*	1
All jujube fruits	Height	1	.509**	.728**	.574**
	Width	.509**	1	.933**	-.390**
	Weight	.728**	.933**	1	-.095
	Shape index	.574**	-.390**	-.095	1

**. Correlation is significant at the 0.01 level (2-tailed).

Ivanišová et al. (2017) reported correlation coefficients for jujubes from Ukraine of r = 0.97 (between fruit diameter and weight), r = 0.77 (between fruit height and weight), and r = 0.65 (between fruit height and diameter). Ma et al. (2021) observed an r = 0.95 for the relationship between fruit weight and diameter in the 'Lingwu Changzao' cultivar. Khadivi et al. (2021) found positive correlations between fruit weight and width (r = 0.75), fruit length and width (r = 0.71), and fruit weight and length (r = 0.70) in several jujube accessions from Iran. Luo et al. (2024) also found positive correlations between the same parameters in some jujube F1 hybrids. Fruit diameter has a strong influence on total fruit weight, as evidenced by the results obtained and supported by findings in the literature.

Cluster analysis (Figure 2), conducted using the Ward method, divided the studied genotypes into two main groups. Analysing the dendrogram based on morphological characteristics, it can be deduced that the genotypes Jurilovca and K1; 'Lang' and 'Xuancheng Jian'; and 'Dabaizao', R5, and the Fellini selection share similarities in their analysed morphometric traits.

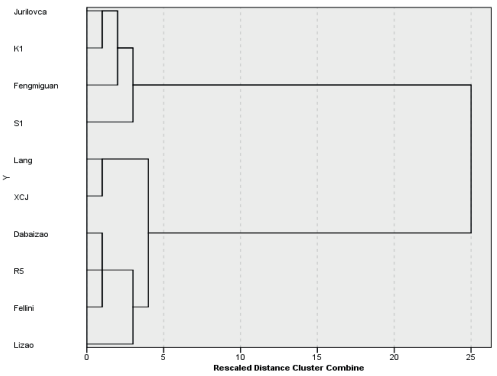

Figure 2. Ward cluster analysis of the studied *Z. jujuba* genotypes based on morphological traits

The morphological characteristics of jujube fruits vary according to genotype, age, and location, and are influenced by pedoclimatic factors and applied cultivation practices (Khadivi et al., 2021). An important factor in evaluating the potential of jujube cultivars for Romania is their resistance to fruit-cracking disease. This common issue affects jujube yield and quality, leading to significant economic losses (Wang et al., 2021; Liu et al., 2025). Based on morphological observations and comparisons with scientific literature, all the studied genotypes are highly resistant to fruit cracking, except for the 'Lang' cultivar. According to Li & Gao (1990), the elasticity and plasticity of the fruit flesh are the main factors influencing cultivar susceptibility. Fruit cracking is a response to unfavourable environmental conditions and the growth of fruit flesh, creating favourable conditions for pathogens. Hua et al. (2015) highlight both internal physiological factors (such as mineral nutrition, sugar accumulation, and fruit firmness) and external factors (including

climate, soil, fertilizers, and crop management) as key contributors to fruit cracking disease. Li et al. (2019) mention that jujube fruits are prone to cracking during the colouring period, with the fruit surface serving as the primary point of water entry, which ultimately contributes to the cracking. Stomata and surface microcracks act as sites for water absorption, making them the key factors responsible for fruit cracking. Wang et al. (2021) also emphasize that a combination of physiological, genetic, and environmental factors influences fruit cracking. Jujube is a species that thrives in poor soil with minimal water, is highly adaptable to varying climate conditions, and produces early with high yields. Due to these traits, it has the potential to be intensively cultivated in areas prone to desertification. Genetic diversity is fundamental for agricultural programs and future development. Morphological characterization is a crucial initial step in identifying plant genetic resources. Therefore, it is imperative to comprehend the characteristics and potential of these valuable resources, as their collection and analysis enable researchers and specialists to effectively utilize them in enhancing traits within breeding programs (Khadivi & Beigi, 2022). The analysed jujube genotypes confirm the species' suitability for Southern Romania. Both genetic variation and environmental conditions contribute to the morphometric traits of jujube fruits.

CONCLUSIONS

The results of this study highlight the main morphometric characteristics of jujube fruits produced in the Southern Oltenia region of Romania. This data can be valuable for selecting suitable cultivars for orchard establishment. Further research will focus on determining the biochemical composition of the fruits and examining the plants' behaviour under the influence of environmental factors.

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