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Comparison between loquat cultivars grown under screen and regular fields

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SUMMARY – Culture of loquat species under screen has increased from the 80s until now in the Marina Baixa county. Culture of loquat under screen began as a protection from climate agents, and especially from wind. However other characteristics related to yield and fruit quality improved when growing in these conditions. In this study a comparison of different loquat varieties, grown under screen and in regular fields, is shown. Data were provided by growers from the Callosa Growing Association corresponding to the 2000-2001 crop year. All plots received the same standard cultural practices. Results showed that culture of loquat under screen, besides protecting the fruit from bad weather, resulted in increased fruit size, keeping the rest of factors at the same level. On the other hand, results suggested that those trees grown under screen could need less fruit thinning, without losing fruit quality. These results must be confirmed during the next crop years.

Key words: Screen culture, fruit size, fruit quality.

RESUME – *"Comparaison entre cultivars de néfliers cultivés sous protection dans des champs ordinaires". La culture de l'espèce néflier sous protection a augmenté depuis les années quatre-vingt jusqu'à présent dans la contrée de Marina Baixa. La culture du néflier sous protection a commencé pour lutter contre les agents climatiques, et spécialement le vent. Cependant d'autres caractéristiques liées au rendement et à la qualité du fruit se sont améliorées lorsque la culture s'est faite dans ces conditions. Dans cette étude est présentée une comparaison entre différentes variétés de néflier, cultivées sous protection et dans des champs ordinaires. Les données ont été fournies par des cultivateurs de l'Association d'agriculteurs Callosa et correspondent à la campagne 2000-2001. Toutes les parcelles ont fait l'objet des mêmes pratiques culturales standard. Les résultats ont montré que la culture des nèfles sous protection, outre le fait de protéger le fruit contre le mauvais temps, augmente la taille du fruit, et maintient le reste des facteurs au même niveau. D'autre part, les résultats suggèrent que les arbres cultivés sous protection pourraient nécessiter moins d'éclaircissage des fruits sans perte de qualité du fruit. Ces résultats restent à confirmer lors des prochaines campagnes.*

Mots-clés : *Culture sous protection, taille du fruit, qualité du fruit.*

Introduction

Culture of loquat species under screen has been increased from the 80s until now in the Marina Baixa county. Culture of loquat under screen began as a protection from climate agents, especially from wind. However, other characteristics related to yield and fruit quality improved when growing in these conditions. In this study a comparison among different loquat varieties, grown under screen and in regular fields, is shown. This study is aimed at demonstrating that growing under screen improves fruit size and quality under the same culture practices.

Material and methods

Two cultivars were studied: 'Golden Nugget' and 'Algerie'. Both of them are grown in the area. Data collected corresponded to the 2000-2001 crop year. Data from cultivar, size, distribution by standard grades and total production from regular orchards and plots under screen were collected. These data came from the records from 1265 growers which 432 corresponded to plots under screen. They corresponded to 38,900 invoices and 16,852 tonnes. Production under screen accounted for 13.4% of total production which came from 34% of growers.

Results and discussion

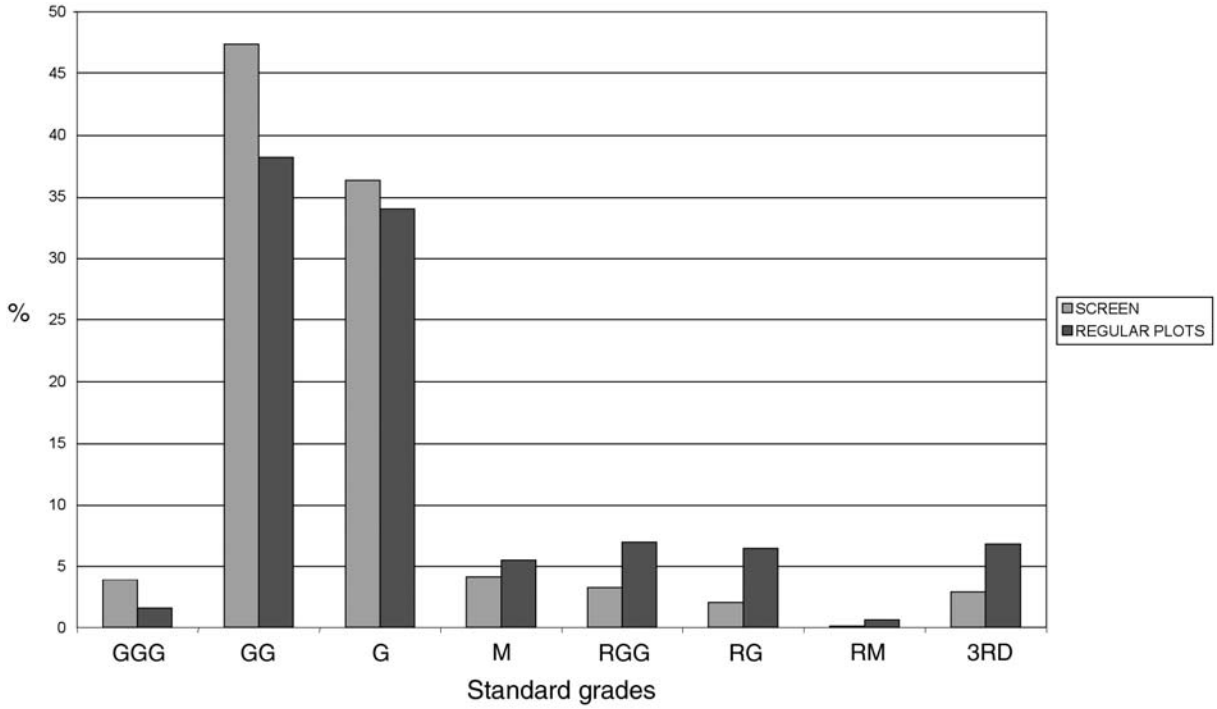
Table 1 shows the commercial standard grades of quality. Figure 1 shows the distribution of production according to fruit size and standard grades of 'Algerie' and 'Golden Nugget' cultivars respectively, grown under screen and on regular plots. According to the data, growing loquat under screen resulted in an increase of fruits belonging to the GGG, GG and G standard grades and a decrease of those grades corresponded to low quality as RGG, RG, RM and third grade. Which implies an increase of percentages of fruits of best quality and a substantial decrease of percentages of fruits from worst quality. Culture of loquat under screen, besides of protecting the fruit from bad weather, resulted in increasing of fruit size and improvement of fruit quality. On the other hand, results suggested that those trees grown under screen could need less fruit thinning without lost of fruit quality. This fact is an advantage for increasing yield while keeping the fruit quality. The yield could be increased by means of less fruit thinning in those plots grown under screen. These results must be confirmed during the next crop years.

Table 1. Commercial standard grades of quality

Diameter	Standard grades
More than 53 mm	GGG
Between 46 and 52 mm	GG
Between 39 and 45 mm	G
Between 32 and 38 mm	M
Between 25 and 31 mm	P

Conclusion

Culture of loquat species under screen resulted in increasing of fruit size and fruit quality.



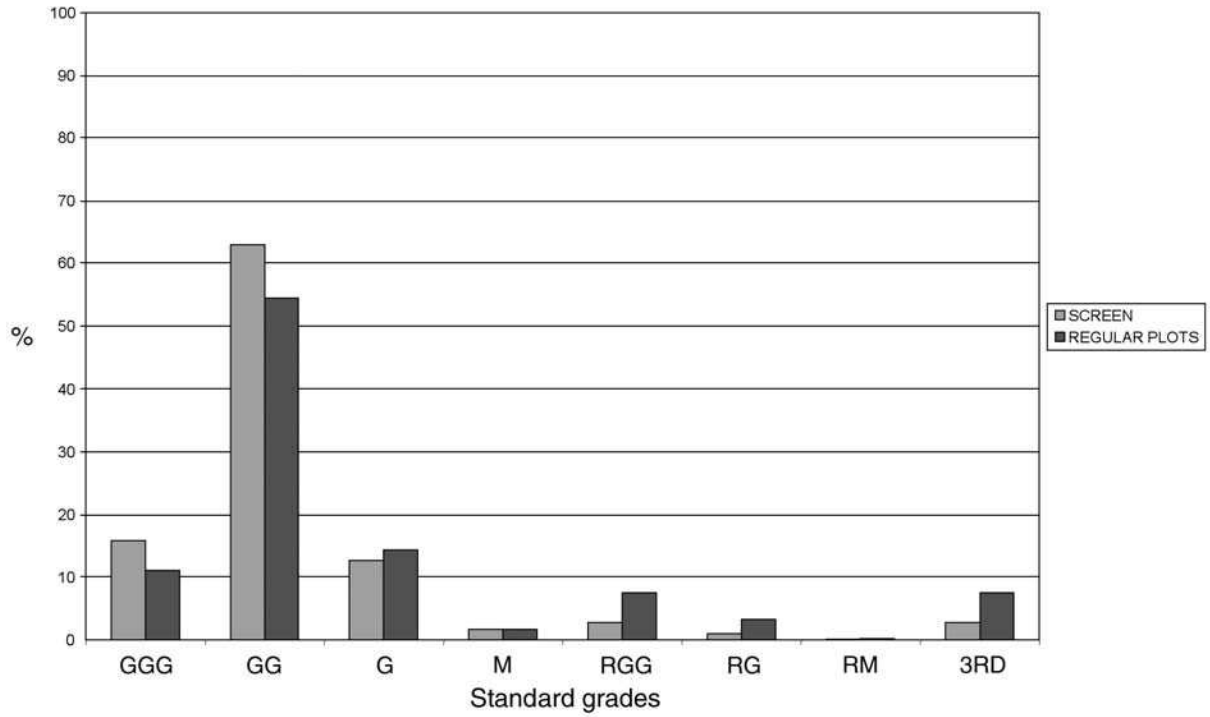


Fig. 1. Comparison of distribution of fruit sizes by standard grades of cultivars 'Algerie' and 'Golden Nugget' respectively, grown under screen and on regular fields.