



Figure 1. Proportion of fruit within each size group

Conclusions:

Kabocha can be grown in the Katherine region. Whether the profit margin is high enough to cover increased costs due to the location would be up to an individual producer. It is strongly recommended that potential growers check with markets for recommended varieties and grades before planting the crop. Calculated yield per hectare is around the range stated by Top and Ashcroft (2000). The 'best' variety will be determined when quality results from the national trial are available and analysed and market preference. The variety Tetsukabuto had the highest yield and fruit set.

Reference:

Top and Ashcroft 2000. Japanese pumpkin – kabocha. A production manual for Victoria. Second edition. Department of Natural Resources and Environment, Victoria.

PROJECT: Development of Vegetable Production Systems – Snake Bean Variety Evaluation 2000

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Location: CPHRF

Objective:

- ***To bulk up seed for future testing for fusarium resistance by the Plant Pathology section.***
- ***To conduct a preliminary assessment of agronomic characteristics using the variety Green pod Kaohsiung as a standard.***

Introduction:

Fusarium wilt of snake beans is widespread in Asian vegetable farms in the Darwin region. Green Pod Kaohsiung, the variety used by all growers, was quite prone to infection. In an effort to identify a new variety with Fusarium resistance, 39 seed lines were sourced from overseas and from within Australia. These lines were trialled at CPHRF during the 2000 dry season.

Management:

Plants were grown on vertical trellis using plastic mulch and fertiliser injection. Non-replicated four plant plots were spaced 3 m apart to prevent varieties growing together. Irrigation, fertiliser and pest and disease management was according to current DPIF recommendations. Sufficient beans were harvested for measurements, while the rest were left to fully mature on the plant and were then collected for seed. Plants were assessed for vigour and uniformity. Yield data was not collected on this preliminary assessment.

Results:

Please see Table 1.

Fruit assessments

Bean quality was graded using No.11 (*Green pod Kaohsiung*) as a standard. Of the 39 lines assessed only No.3 (*Minara variety*) and No.37 (*CP 68*) were considered of comparable quality. No.33 (*Tainong 5*) showed good bean characteristics but its purple colour would require market testing.

Plant assessments

Plant uniformity and vigour assessments showed several lines with ratings comparable to *Green pod Kaohsiung*.

All the seed lines will be tested for Fusarium resistance. Those with a less than good quality rating may be useful in a breeding program if they show good resistance.

Table 1. Snake bean plant and fruit assessments

Average of 10 beans

Name	Width (mm)	Length (cm)	Weight (g)	Colour light/mid/dark	Comments/Appearance shape/thick/smoothness	PLANT VIGOUR	PLANT UNIFORM
1. Red Eye	8	350-400	125	Light	Bumpy. Colour Variable. Flat areas. Poor	Good	Very Good
2. Green Patch	7	65-75	215	Light	Long/thin - pale. Fairly smooth. Too long - poor	Fair	Good
3. Minara Variety	10	35-45	210	Dark (good)	Sturdy/thick. Round. Skin a little rough. Purple tips. Good type.	Good	Very Good
4. Black Mottled	8	50-60	270	Light	Round/long. A little rough. Even pale colour. Fair	Good	Very Good
5. Kiew Doke No 3	8	50-60	250	Light/mid	Colour variable. A little bumpy - some flat areas. Mostly round. Fair	Good	Good
6. KD 2	7	50-70	210	Mid	Thin for length. Tapering to end. Length variable. Poor	Good	Good
7. KD 4	9	70-75	355	Mid	Very long but round. Even length. Fair bean but too long. Fair/poor.	Fair	Good
8. Mun River	8	40-50	175	Mid/dark	Skin very rough. Some lumps/round unattractive. Fair/poor. Length good	Fair/Good	Good
9. Chi River	7	40-50	175	Mid	Colour variable. Rough skin. Some bumps. Most round. Fair	Fair	Good
10. Phong River	8	40-50	160	Light	Poor colour. Round. Fairly rough skin. Some lumps. Fair/Poor	Fair	Good
11. Green pod kaohsiung	10	40-55	210	Dark	Green pod Kaosuing*. Good colour purple tips. Round/thick. Fairly rough skin. Similar to number 3. Good	Very Good/Good	Good
12. PI 259759	8	20-25	65	Light/mid	Colour variable. Lumpy - tough skin - will not snap. More like a cowpea - Flat. Very poor	Fair	Fair
13. TVu 2449	8	30-35	90	Very light	Very pale colour. Very lumpy. Tough skin. Very poor	Poor	Fair
14. TVu 2891	8	30-35	95	Very light	Almost white same as number 13. Very poor	Fair	Good
15. TVu 3165	7	35-40	115	Light	Very lumpy. Some flat. Very variable. Poor	Very good	Good
16. She-pai-tou	8	35-45	125	Mid	Variable - some smooth/rough. Mostly flat. Poor	Poor/Fair	Good
17. Han chui yen	7	50-55	135	Very light	Thin and lumpy. Poor colour. Rough skin. Poor	Poor	Fair
18. Lo chien tai	8	50-55	160	Light/mid	Long and thin. A little lumpy. Round. Too pale. Fairly/poor	Poor	Fair
19. PI 419005	8	35-40	140	Light	Round - a little lumpy. Fairly uniform. Too pale. Fair	Fair/Good	Good
20. PI 419102	7	35-40	125	Mid	Thin but round. A little pale. Fair	Fair/Good	Good
21. Yi tan hong 752	7	35-45	95	Very light	Lumpy/thin tough skin. Very poor	Very poor	Good
22. Hung cho yang	7	40-50	135	Very light	Same as number 21 Very poor.	Poor	Good
23. PI 419219	9	50-55	190	Light/mid	Colour variable. Shiny tough skin. Will not snap. Fairly attractive. But too tough. Poor.	Good	Good
24. PI 427093	8	45-50	155	Very light	Poor colour. Lumpy/rough skin. Poor.	Poor	Fair

Name	Width (mm)	Length (cm)	Weight (g)	Colour light/mid/dark	Comments/Appearance shape/thick/smoothness	PLANT VIGOUR	PLANT UNIFORM
25. Hung tsui yen	8	30-35	125	Mid	Very lumpy. Tough skin. Unattractive. Poor	Fair/good	Good
26. Dagupan pangasinan 1.3	7	40-45	110	Light	Rough skin lumpy. Long and thin. Poor	Poor	Fair
27. 20 – 1	8	45-55	185	Light	Same as number 25 but paler. Poor.	Poor	Fair
28. CP 12	9	45-55	185	Light	Round/thick. Good type but pale. Fair	Fair	Poor/Fair
29. CP 16	9	45-55	205	Light	Same as number 28. But a little bumpy. Fair	Fair/Good	Good
30. China Town	7	40-45	115	Light	Tends to be flat thin. Poor	Fair	Fair
31. Bush sitao	8	35-40	135	Light/mid	Colour variable. Flat spots. Rough skin. Fair/poor	Fair	Fair
32. Tainong 1	8	30-35	110	Very light	Round/short. Too pale. Poor	Fair	Good
33. Tainong 5	9	40-45	170	Dark purple Green tips	Round/Thick solid beans. Good type but colour?	Poor/Fair	Fair
34. K – 30	8	45-50	170	Light	Round/a little bumpy. Too pale. Fair	Fair	Good
35. CP 57	8	35-40	115	Mid	Most flat and lumpy. Tough skin. Poor	Poor/Fair	Poor
36. CP 63	8	35-40	115	Mid	Round/lumpy. Rough skin. Tapered to tip. Poor	Fair	Good
37. CP 68	9	40-45	185	Mid/Dark	Good colour - purple tips. Similar to numbers 3 and 11. Thick/round. Good uniform	Good	Good/Very good
38. 280785 – 0604	8	50-70	165	Light	Long/flat. Tough Skins. Very variable. Poor	Fair	Fair
39. Guilin long bean	8	70-90	220	Light	Long/round. Lumpy - rough poor. Very long/variable	Fair	Poor/Fair