

THREE NEWLY-RELEASED CASHEW CULTIVARS OF TL2/11, TL6/3 AND TL11/2

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In the current years, Vietnam has ranked the first of the world in cashew export with a turnover of US\$ 920 millions in 2008. In this year, the total cashew growing area is nearly 420 thousand hectares and the nut yield was almost 1.1 ton/ha on average of the whole country.

In spite of Vietnam cashew kernel has been improved and highly evaluated in the world market, cashew production is facing with challenges, such as low productivity due to low yielding cultivars, inappropriate cultivation and management practices, and unfavorable natural conditions. This brought about a low economic efficiency in cashew production, and a low competitiveness against other crops.

To improve cashew production, a Ministerial research programme has been continuously carried out with the emphasis on selecting new cultivars of high nut yield, good kernel quality and adapted well to various agro-ecological conditions of the Southeastern Region (SER).

Results of regional trials on 162ha in four provinces of the SER showed that three newly-released cultivars, namely TL2/11, TL6/3 and TL 11/2 gave nut yields of 1.7-2.15 tons/ha in the fourth harvest, higher than that of PN1, a check cultivar, from 10% to 47% (Fig. 1).



In comparison to PN1, three newly-released cultivars perform better plant shapes with short stem and compact canopy; these help the pruning of branches after harvesting and the management of plants more easier.

Three cultivars, TL 2/11, 6/3 and 11/2 have exhibited a uniform nut shape and large nut size which ranges from 140 nuts/kg to 143 nuts/kg (Fig. 2), and all three TL cultivars have high kernel recovery ratios of 29-30% from third harvest on. These nut qualities fulfill the requirement of processing factories.

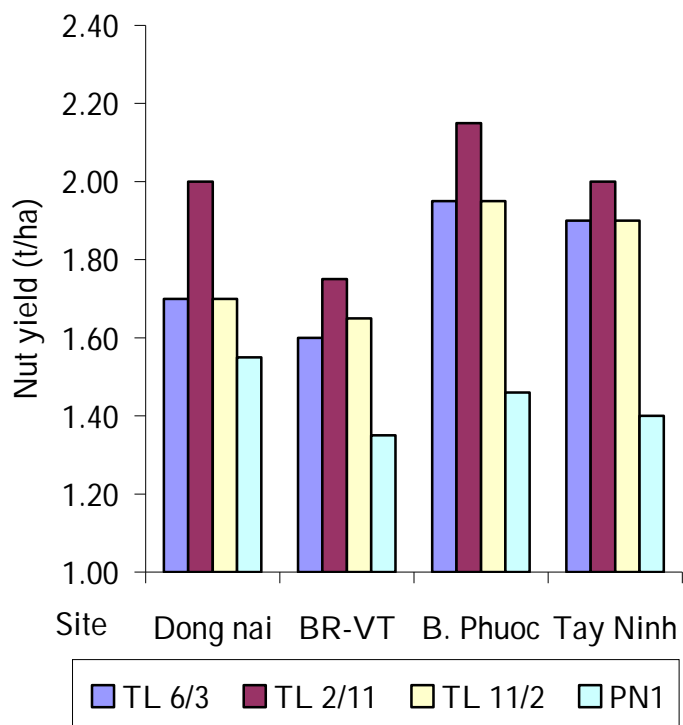


Figure 1. Nut yield of cashew cultivars in regional trials

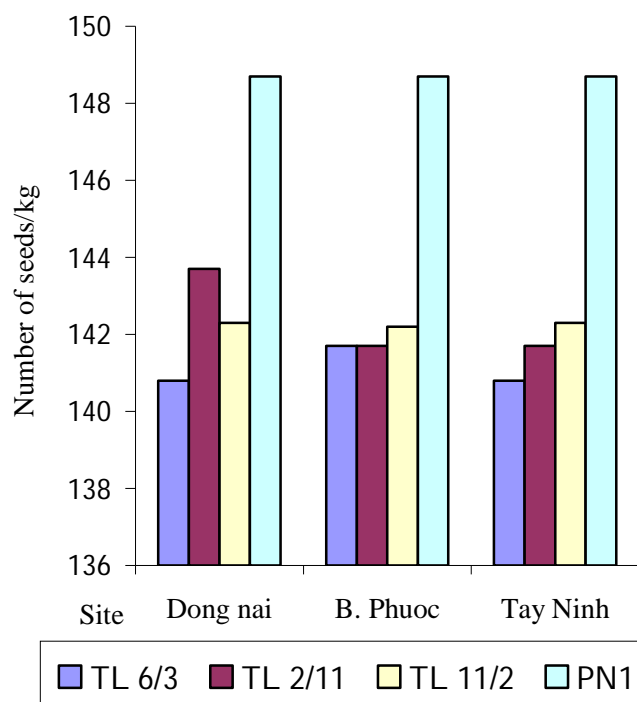
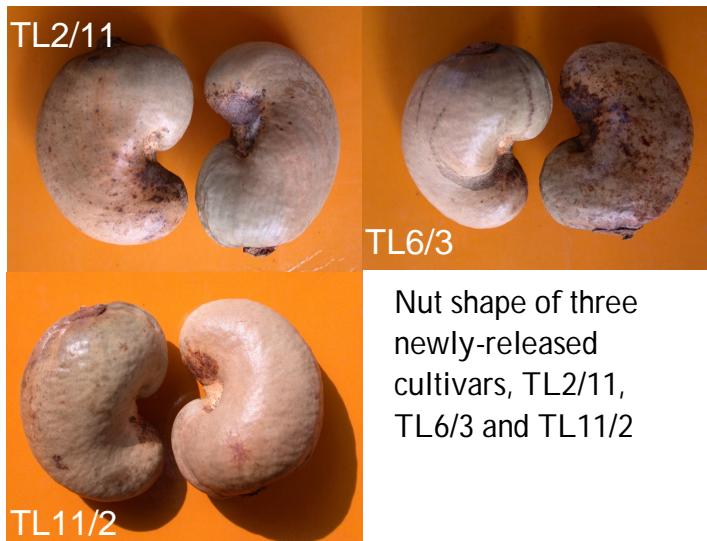


Figure 2. Nut size of cashew cultivars in regional trials



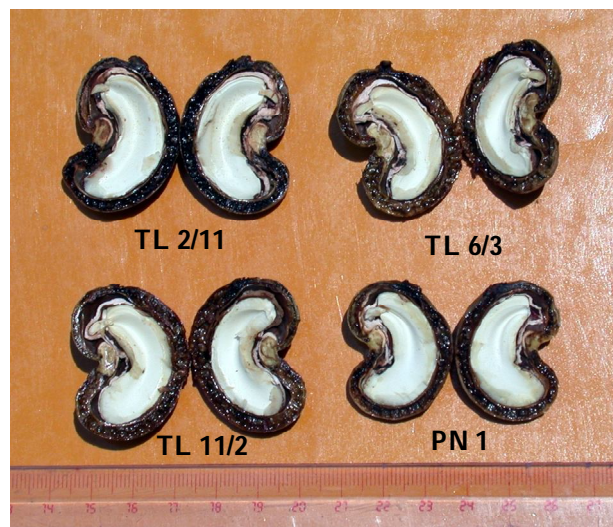
Nut shape of three newly-released cultivars, TL2/11, TL6/3 and TL11/2

Major Botanical and agronomic characteristics of TL2/11, TL6/3, and TL11/2

1. Origin: TL2/11, 6/3 and TL11/2 were screened, selected and vegetatively propagated from Sisaket 60-2, Sisaket 60-1 and Sisaket A, respectively.

2. Botanical characteristics

- Leaves: green colour, large and ovate lamina at mature, slightly twisted in TL6/3 and TL2/11, and flat in TL11/2.
- Fruits: young fruits are green in TL6/3 and TL11/2, green with yellow stripe in TL2/11, turn red when ripe.
- Nuts: young nut of TL6/3 and TL11/2 is green, mature nut of TL6/3 is greenish grey with thin shell, that of TL11/2 is ivory grey with thick shell; while young nut of TL2/11 is reddish purple, turns greenish grey when ripe and thick shell.



3. Agronomic characteristics

- First flowering: 18 months after planting.
- Flowering period: December to next February.
- Flowering and fruit setting: high proportion of hermaphrodite flowers, cluster of 6-10 fruits on average.
- Nut yield: mean nut yields of 8-14 kg/plant or 1.6-2.8 tons/ha from the fourth harvest.
- Nut size: 140-145 nuts/kg.
- Kernel recovery ratio: 28-30%.
- Tolerant to major insect pests and diseases, such as tea mosquitoes (*Helopeltis antonii*), shoot borer (*Alcides* sp.) and anthracnose (*Colletotrichum gloeosporioides*).



Cashew farmers in the SER have been interested in three newly-released cultivars during field days in 2007 and 2008. TL2/11, TL6/3 and TL11/2 will be approved for the testing production in the Southeastern Region.

