

# NOMINAL SUGAR EXPOSURE



## Nominal sugar exposure

As a result of the linkage between cane price and sugar price in the cane price formula, growers have an underlying exposure to sugar price.

As the sugar industry has progressively deregulated, growers have been provided opportunities to individually manage their sugar price exposure independently from the price risk management decisions of their miller.

Grower price risk management is enabled by Wilmar calculating a grower's Nominal Sugar Exposure (NSE) and facilitating the grower making decisions about how the risk on this exposure is managed. Wilmar enables the grower to 'allocate' their Nominal Sugar Exposure to various forward pricing mechanisms (Call or Target pricing) or fixed-tonnage pools. In doing so, Wilmar agrees that the pricing outcomes achieved in each of these pricing methods will determine the price Wilmar receives for that portion of its sugar. In turn, this same price will be used by Wilmar as the basis for determining the grower's cane payment.

A grower's Nominal Sugar Exposure may be derived from the cane price formula and the tonnes of cane that a grower supplies the mill. As growers do not produce raw sugar, Wilmar refers to a grower's Nominal Sugar Exposure to indicate that the sugar tonnes are 'in name only' and therefore 'nominal'.

A grower's 'Nominal Sugar Exposure', expressed in units of tonnes of nominal sugar, is determined from the following formula:

$$\text{Grower's Nominal Sugar Exposure} = \text{Tonnes of cane} \times 0.009 \times (\text{CCS}^* - 4)$$

\* CCS is a grower's relative CCS.

## Allocation of Nominal Sugar Exposure

Until the finish of crushing in any particular season the NSE is just an estimate. This is because the final cane quantity and the relative CCS for the grower are yet to be determined. Nevertheless, subject to various restrictions in order to prevent over-pricing, a grower has the opportunity before a season commences to allocate portions of their estimated NSE to different fixed-tonnage pools or to use Wilmar's Target or Call forward pricing mechanisms.

As an example, under Wilmar's current forward pricing arrangements, the proportion of the grower's NSE that can be forward priced is:

1st forward year (i.e. as a season becomes 'current')	60% of estimated NSE
2nd forward year	40% of estimated NSE
3rd forward year	30% of estimated NSE

The primary reason for limiting the amount of a grower's NSE that can be committed in forward seasons is because growers are subject to production risks caused by weather and disease (e.g. Orange Rust outbreak, Yellow Canopy Syndrome, cyclone damage or persistent wet weather during crushing) and may not be able to supply sufficient cane to cover the full amount of their estimated future NSE.

## Meeting committed NSE

A grower must supply Wilmar with sufficient cane to cover that portion of their NSE which has been forward-priced or committed to fixed tonnage pools. Wilmar needs to have the cane to produce the physical sugar underlying the sugar futures contracts that have been entered into in respect of this NSE. This is because these positions need to be closed out to achieve the hedged price. Failure to supply the same amount of physical sugar that has been hedged can result in financial losses.

The tonnes of cane required to cover a grower's committed NSE will depend on the CCS of the cane the grower supplies to the mill.

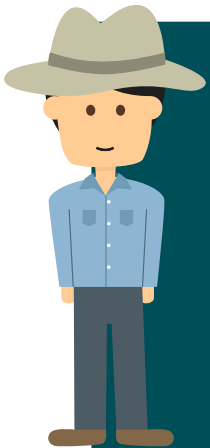
The quantity of cane required to cover the grower's committed NSE may be calculated using the formula below.

The following table demonstrates the relationship between cane tonnes and Nominal Sugar Exposure.

NSE Tonnes	Farm CCS	Cane Tonnes
300	12	4,167
300	13	3,704
300	14	3,333
300	15	3,030
300	16	2,778

So, a grower who produces 13 CCS cane will be required to supply 3,704 tonnes of cane for every 300 tonnes of NSE committed while a grower who produces 15 CCS cane will require only 3,030 tonnes of cane to be supplied for every 300 tonnes of NSE committed. That is, the CCS will determine the amount of cane required to be supplied for any given amount of NSE that is committed to these types of pricing methods.

$$\text{Cane Tonnes} = \text{Nominal Sugar Exposure} \div [0.009 \times (\text{CCS} - 4)]$$



### TONY AND MICK\*

Mick manages an irrigated cane farm in the Burdekin area, which produces 25,000 tonnes of cane (5 year average) on an 85% rotation. His average cane yield is 110 tonnes per hectare. Last season his relative CCS was 14.9.

However, to calculate Mick's estimated NSE it is necessary to initially use his 5 year average relative CCS, which is 14.85.

**Mick's NSE = 25,000 x 0.009 x (14.85 - 4) = 2,441 nominal sugar tonnes**

Mick's forward pricing (Target and Call pricing mechanisms) and fixed tonnage pool limits are then 1,465 next season (i.e. 60%) and then 976 and 732 nominal sugar tonnes in the next two forward seasons, respectively.

Tony farms in the Herbert River district and runs a 166 hectare farm producing 12,000 tonnes of cane at 85 tonnes per hectare (85% rotation). To calculate Tony's estimated NSE his 5 year average relative CCS 13.36 is used.

**Tony's NSE = 12,000 x 0.009 x (13.36 - 4) = 1,011 nominal sugar tonnes**

Tony's NSE is 1,011 nominal sugar tonnes and thus his forward pricing sugar limits are 607 (i.e. 60%), 404 and 302 nominal sugar tonnes, respectively.



\*Hypothetical case studies, not based on any individual farm or cane grower.



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