Rising fuel prices have both a direct and indirect effect on producers. Grain producers' diesel consumption tends to increase during planting. A tractor, for example, can guzzle up to 15ℓ of diesel per hectare.

Fuel price increases: How does it affect producers?

By Christal-Lize Muller

Rising fuel prices are inflicting a heavy blow on the agricultural industry, with the direct impact on their input costs putting producers on the back foot. Rising fuel prices also affect them indirectly in terms of transport costs to and from the farm, while the impact of fuel price decreases as recorded in January this year, is minimal seeing as most plantings have already been concluded.

Agri SA chief economist, Kulani Siweya, says fuel prices in South Africa are mainly determined by the exchange rate and international oil price. A weaker rand coupled with the rising price of crude oil are the main drivers of fuel price increases.

Impact on agriculture

According to Siweya, fuel accounts for around 13% of producers' production costs, especially in the grain and oilseeds industry. Fuel price hikes such as those seen in November 2021, however, are a major source of concern, especially since it marks the start of the summer crop planting season and an associated increase in fuel consumption.

This results in rising input costs, notably those of fuel and fertiliser, which put pressure on producers' profit margins. "Producers are generally price takers, which means they can rarely pass the costs on to the consumer. This makes mitigating the impact very difficult," he says.

Department of Mineral Resources and Energy (DMRE) statistics show that fuel prices on 3 November 2021 reached a record high since 2 January 2019. The retail price of petrol rose by R1,21/ℓ to R19,54/ℓ in November for 95-octane unleaded petrol inland, and R18,82/ℓ at the coast. Diesel rose by R1,48/ℓ to R17,19/ℓ inland and R16,58/ℓ at the coast in November.

In December, fuel prices hit another record high since 2 January 2019, when 93- and 95-octaine petrol increased by 75c/ℓ to R20,29/ℓ inland, and R19,57/ℓ at the coast. Diesel (0,05%) increased by 72,5c/ℓ while 0,005% diesel increased by 74,50c/ℓ to R17,92/ℓ inland, and to R17,30/ℓ at the coast.

January 2022 was marked by an overall decrease in fuel prices, with the price of 93-octane petrol dropping by 71c/ℓ, while 95-octane petrol decreased by 68c/ℓ to R19,61/ℓ inland and R18,89/ℓ at the coast. Diesel (0,05%) dropped by 67,80c/ℓ and 0,005% diesel by 69,80c/ℓ to R17,24/ℓ inland, and to R16,63/ℓ at the coast.

This decrease was attributed largely to the rand strengthening against the American dollar after a weak performance during December, when travel restrictions due to the spread of the new Omnicron variant created new fears regarding the South African economy.

According to Siweya, the petrol price increased by 30% over the eleven months from January 2021 (R14,68/ℓ) to November (R19,54/ℓ) – a risk-carrying trend, especially during harvesting, as 75% of grain and oilseeds are transported by road.

However, there is a lifeline for producers. "If global commodity prices remain high, it could be producers' saving grace, especially in terms of field crops and horticulture," says Siweya.

Composition of fuel prices

International fuel price calculations are based on free-on-board (FOB) values and the petroleum product prices quoted daily by export-oriented refining centres in the Mediterranean, Persian Gulf and Singapore.

The basic fuel price (BFP) is the average of those quotes for diesel to which freight, insurance, financing costs, coastal storage and losses are added. "It provides cost insurance and freight costs for fuel delivered to South African ports."

The local BFP also includes levies and taxes such as the fuel and road accident fund levy, customs and excise tax, the illuminating paraffin tracer dye levy, as well as the petroleum products levy. Applicable transport is also included, as well as the slate levy.

The DMRE defines some of these formulas and levies as follows:

- Wholesale profit is a fixed maximum monetary margin that is state-regulated and used to determine the wholesale margin based on refineries' financial efficiency. It is adjusted from time to time.
- The fuel levy is the general tax on fuel as determined by the minister of finance.
- Customs and excise duty is a levy collected in terms of an agreement by the Southern African Customs Union.
- The road accident fund is aimed at compensating third-party victims of motor vehicle accidents.
- The zone differential in Gauteng is the cost of transporting fuel from the port to the relevant zone in Gauteng.
- The petroleum products levy partially reimburses fuel companies for the tariff they pay to Transnet for using its fuel pipeline. The ministers of energy and finance approve the annual budget.

What is the slate levy?

According to the DMRE, the BFP of petrol, diesel and paraffin is calculated on a daily basis. This calculated BFP is either higher or lower than the BFP reflected in the fuel price structures at that time. The official BFP remains constant until next month's adjustment, while the actual BFP fluctuates every day. These daily fluctuations mean that consumers are paying too little or too much for fuel.

Calculations of this daily under- and over-recovery are performed during the fuel price review period and an average is calculated. The monthly unit (over-/under-recovery) is multiplied by the volumes sold locally in that month, and the cumulative over-/under-recovery is recorded on a cumulative account (slate account).

A slate levy is therefore applicable on fuel to finance the balance in the slate account when the slate is in a negative balance. If fuel prices continue to rise or the rand continues to weaken, the account must pay out more than has been collected. When the slate account is more than R250 million in the red, a slate account levy is introduced.

The slate account had a negative balance of R1,657 billion at the end of September 2021 and the slate account levy was therefore applicable. This levy is applicable to both petrol and diesel, and is paid to the Central Energy Fund (CEF), which eventually reimburses the oil companies. The amount reimbursed will then reduce the balance, until it drops below R250 million and the slate account levy falls away.

High levies and taxes

Wayne Duvenage, CEO of the Organisation Undoing Tax Abuse (Outa), believes the weak value of the rand and government's relentless desire to increase taxes through fuel-related levies, are contributing to high fuel prices.

He says despite the higher basic fuel price component, the 126% increase in the various levies and taxes introduced over the decade are raising concerns. The combined cost of the general fuel, road accident fund and other levies in November 2011 stood at R4,48 for each litre of 95-octane petrol. At the time of writing this article, the situation had changed and this amount stood at R10,10, which is R5,62 (126%) higher than a decade ago.

The situation for diesel is more or less similar, he says. Outa maintains that the state has taken the fuel levy increase too far and that additional tax revenue cuts must take place.

According to Duvenage, the reliance on existing fuel tax revenues – especially the general fuel levy (approximately R88 billion a year) and road accident fund levy (around R45 billion) – will come under considerable pressure in the coming decade. With the switch to electric vehicles, the state will be under pressure to replace these revenue streams with other mechanisms, and no fuel levy increases should therefore be considered.

Rising agri production costs

Dr Johnny van der Merwe, managing director of Agrimark Trends (AMT), says the drop in the diesel price in January had a negligible impact on grain producers, as most of them had by then already incurred the costs relating to soil preparation and planting. Most maize and soya bean plantings had been concluded at the time, while a few producers might still have been waiting to plant sunflower, although their soil preparations would have already been done at the time.

"The greatest diesel expense for oilseeds and grain producers occurs just before soil cultivation until planting, after which their diesel expenses decrease." Also, the January fuel price decrease was not that big, which means the impact on profitability will be very small.

Van der Merwe says the November 2021 fuel price increases had a significant effect on particularly grain producers' production costs. If only primary cultivation is taken into account, this amounts to a cost increase of as much as R241 per hectare.

"Delivery costs (various inputs) to the farm, as well as delivery costs to silos, will show exactly what impact this additional direct cost has on producers' profit margins," he says. Maize farmers are likely to be worst off, especially if the western parts of the country with their sandy soil and reliance on rail transport are considered.

"Most farmers have hopefully already completed these operations for the coming season and/or purchased fuel in advance, which will significantly reduce the impact on the total cost."

Fuel and the livestock producer

For livestock producers, transport costs will also be driven up, which could have a direct effect on their livestock's marketing costs. "These higher costs will not only affect producers' profitability, but will ultimately mean higher food prices for the consumer. An upward adjustment to the interest rate also pushes up inflation, which will increasingly come under the magnifying glass."

To illustrate the situation, Dr Van der Merwe uses a mechanical cost table (*Table 1*). The table is based on primary cultivations only. The price for diesel in this table is the average price for diesel delivered to the farm, after the rebate. An average yield per hectare for summer crops per region was used.

Table 1: The impact of the November 2021 price increase on fuel consumption in agricultural production.

	Fuel consumption (R/ha)		
	Western Free State	Eastern Free State	North West
R12,24/ℓ (before Nov price increase)			
Maize (5 tons per hectare)	1 072	887	787
Soya bean (2,5 tons per hectare)	744	668	671
Sunflower (2 tons per hectare)	662	689	661
R15/ℓ (after Nov price increase)			
Maize (5 tons per hectare)	1 313	1067	964
Soya bean (2,5 tons per hectare)	912	819	822
Sunflower (2 tons per hectare)	811	844	811
The difference			
Maize (5 tons per hectare)	-241	-180	-177
Soya bean (2,5 tons per hectare)	-168	-151	-151
Sunflower (2 tons per hectare)	-149	-155	-150

Agricultural support

Siweya says Agri SA is constantly engaging with stakeholders in a bid to protect the agricultural industry from the shocks of fuel price increases. There is regular contact with the National Energy Regulator (Nersa) and Eskom to, among others, reduce the impact of electricity costs, seeing that the South African agricultural industry receives little to no direct government support. The industry needs protection to remain viable and ensure food security.

For more information, contact Kulani Siweya of Agri SA on 012 643 3400 or kulani@agrisa.co.za, Wayne Duvenage on 087 170 0639 or wayne.duvenage@outa.co.za, or Dr Johnny van der Merwe on 073 140 2698 or johnny@amtrends.co.za.