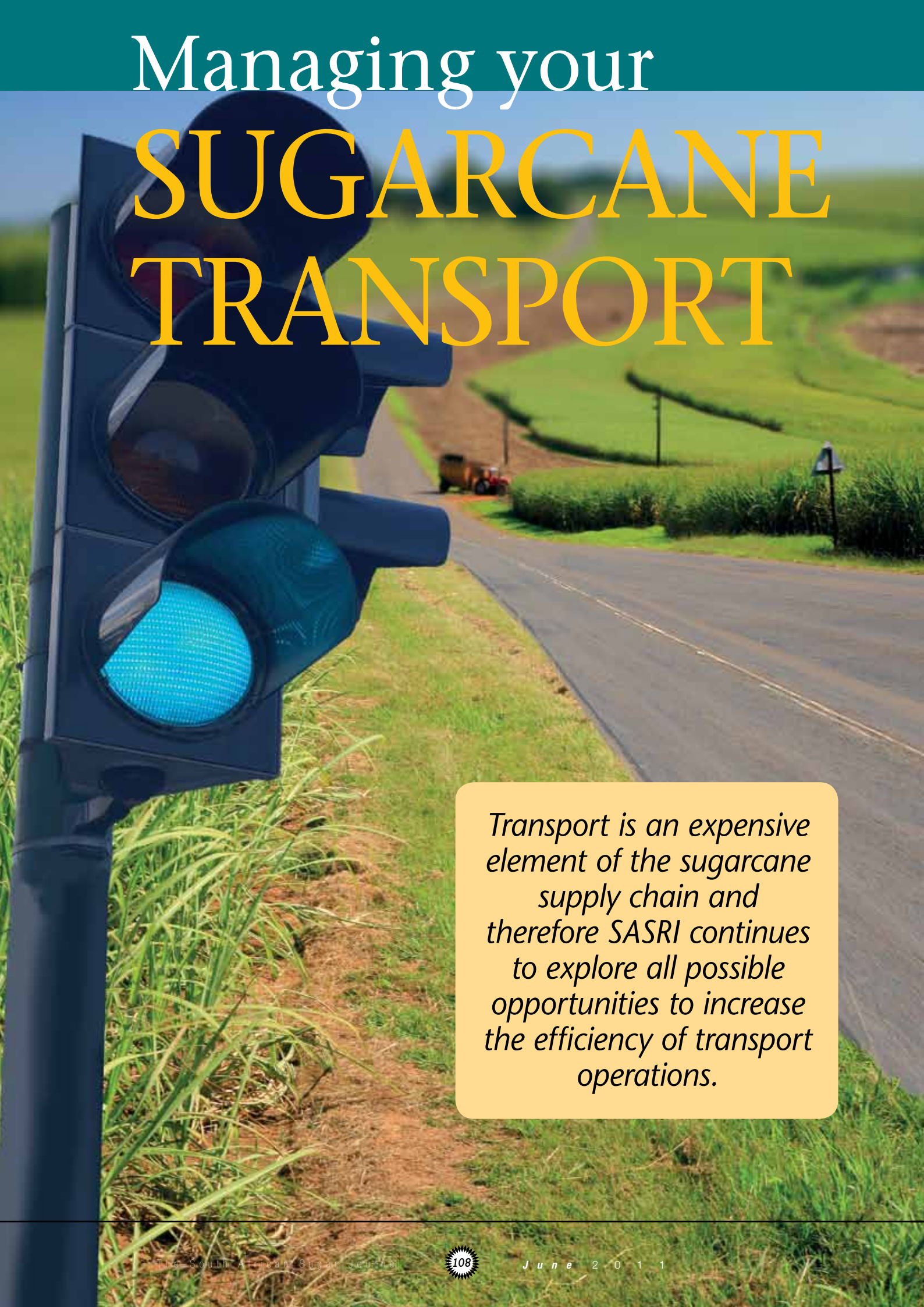
Managing your SUGARCANE TRANSPORT



Transport is an expensive element of the sugarcane supply chain and therefore SASRI continues to explore all possible opportunities to increase the efficiency of transport operations.

INITIATIVES TO IMPROVE TRANSPORT EFFICIENCIES HAVE PRODUCED SYSTEMS, TOOLS AND GUIDELINES WHICH, IF IMPLEMENTED, CAN RESULT IN A SIGNIFICANT IMPROVEMENT IN LOGISTICS AND A REDUCTION IN BOTH COSTS AND CARBON FOOTPRINT. THE REGULAR SUPPLY OF SUGARCANE TO THE MILL, WHICH IS A NECESSARY REQUIREMENT FOR EFFECTIVE SUGAR PRODUCTION, WILL BE IMPROVED RESULTING IN AN OVERALL BENEFIT FOR ALL STAKEHOLDERS IN THE INDUSTRY. MUCH EFFORT AND COMMITMENT IS REQUIRED TO IMPLEMENT THESE OPTIONS, BUT THE PAY-OFF IS MASSIVE AND WELL WORTH THE EFFORT. SOME OF THESE INITIATIVES ARE HIGHLIGHTED BELOW.

Transport Management

As costs escalate and margins shrink, it is crucial to ensure that the transport system is a well-managed, reliable, safe and cost-effective operation. There are many aspects to transport management and many options are available to assist in achieving an effective operation.

Payload management: The cost of transport is very sensitive to vehicle payload, and under-loading is a serious problem. Industry data show that one in every seven trips is unnecessary. There are a number of systems which can be used to ensure maximum legal payloads. A study in 2006 has shown that onboard weighing is a cost-effective solution to the problem. Recent work shows that poor practices on loading zones result in under-loading.

Vehicle monitoring: Vehicle management systems enable one to monitor driver behaviour and vehicle operation, both of which are indicators of system efficiency. With the appropriate incentives, it has been shown that there can be a sustained improvement in driver and vehicle performance resulting in reduced costs and improved safety.

Vehicle scheduling: Tools are available to ensure that vehicles arrive at mills at regular intervals and turnaround times are minimised. Three mills in South Africa have introduced vehicle scheduling systems and there is ample evidence to show that this has resulted in significant benefits to the mills. This option does not enjoy the consideration and commitment that it deserves thus resulting in huge losses to the SA industry annually.

Benchmarking: This process ensures that one's performance compares with the best and that there is a process of continuing improvement. This is the only way to systematically improve efficiency. Unfortunately this technique is also not being used effectively.

Vehicle modelling tools: Tools enable one to investigate "what if" scenarios when considering vehicle types and routes. Once a system has been purchased it can be used with a suitable vehicle monitoring system described above. In many instances, such equipment has paid for itself in a very short space of time, thereafter returning a profit to the owner.

Road Transport Management System (RTMS): This is an industry-led self-regulation scheme which encourages operators to implement management systems that preserve road infrastructure, improve road safety and increase the productivity of the transport system. The sugar industry has accepted that RTMS has real benefits and encourages all operators to comply with this scheme. The benefits of implementing RTMS are reduced costs that flow from:

- a consistent maximum legal payload,
- capable drivers,
- well-maintained vehicles, and
- a productive system.

A transporter who can show that he loads responsibly can apply to be RTMS-accredited. Currently, there are many transport vehicles in the timber and sugar industry which operate on our roads with the RTMS accreditation logo mounted on the front of their vehicles. Experience shows that this system invariably results in improved productivity and reduced costs.

In a recent media release the Transport Minister Sibusiso Ndebele has commended the various stakeholders of the road transport industry (including the sugar industry) for their dedication and commitment towards implementation of the RTMS to reduce road deaths.

Above: *A haulage vehicle with RTMS accreditation*

Infrastructure

Optimum zone placement: A common mode of sugarcane transport involves field vehicles moving cane to a zone which is followed by road transport vehicles which move the product from zone to mill. Because field vehicles are much more costly to operate (per ton/km) than road transport vehicles, a model was developed to optimise the location of loading zones to minimise the overall transport costs. This model was further developed into a user-friendly system to simplify the task.

Optimum route selection: The cost of transport is directly related to the distance travelled. A group of farmers in the sugar industry have worked together to establish a shorter toll road thereby saving millions of rands each year. The development of a selection tool and a case study in 2008 showed that there was an opportunity to select and build shorter routes that are economically viable.

Conclusion

Although transport costs have rocketed in recent years, there are a number of opportunities to improve efficiency and reduce costs. Many of the outcomes listed in this article are the result of research programmes which have proven their worth in practice and have been presented at the South African Sugarcane Technologists' Association (SASTA) Congress. Each one has demonstrated the potential to save huge costs and improve the supply chain in general. The sugar industry is encouraged to take advantage of these opportunities. Anyone interested in becoming involved should contact Peter Lyne at SASRI, e-mail: peter.lyne@sugar.org.za or telephone 083 652 6088.

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