KEEPING YOUR COSTS DOWN

Input costs continue to rise faster than commodity prices and farmers have to manage this in an effort to be sustainable. Mechanisation costs are some of the highest costs that the farmer has to bear, thus making it an attractive target area to reduce input costs.

A RECENT ANNUAL COST SURVEY SURVEY OF INPUT COSTS BY THE SOUTH AFRICAN CANEGROWERS' ASSOCIATION (SACGA) SHOW THE RELATIVE COSTS THAT A GROWER HAS TO BEAR.

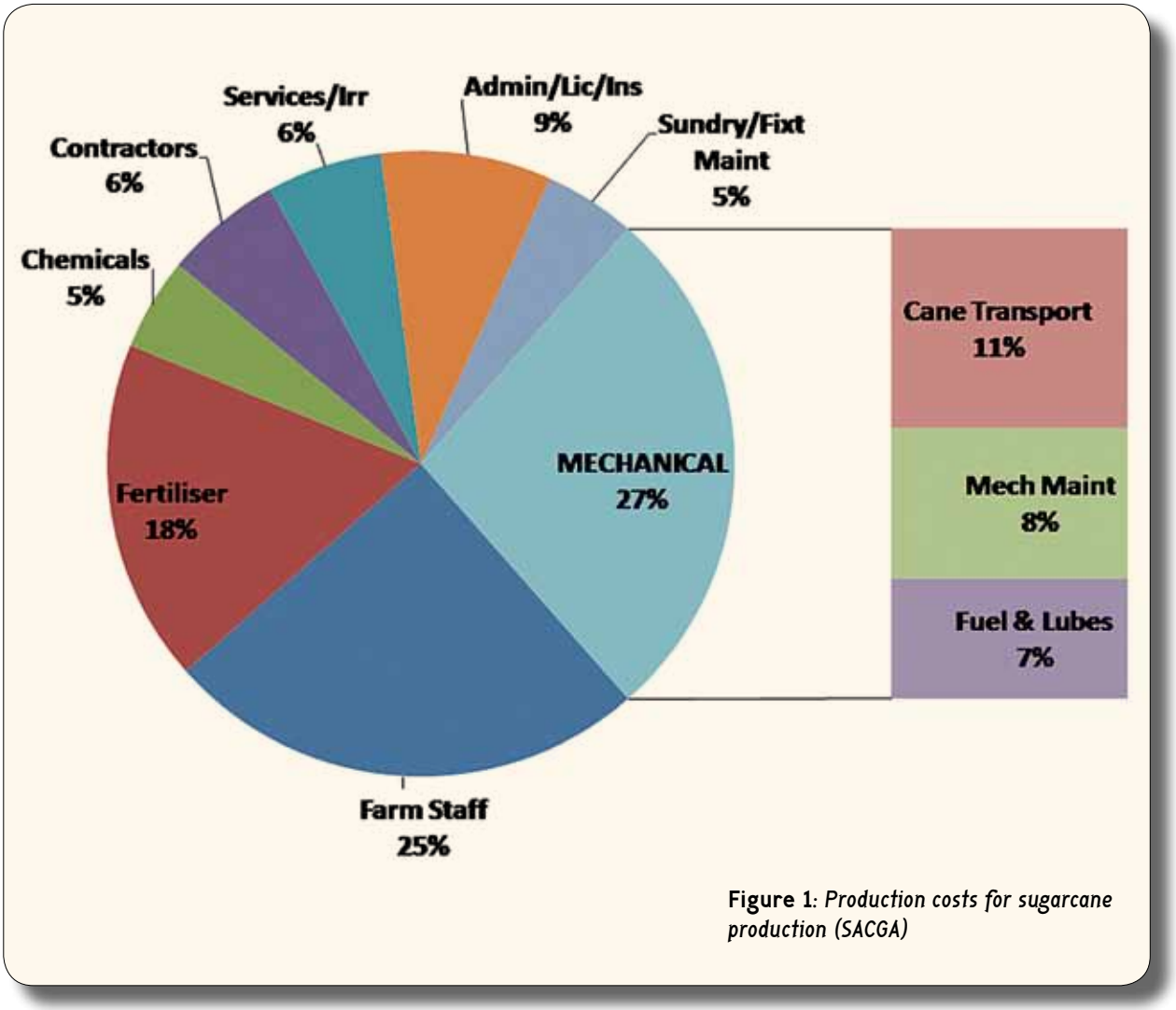

Figure 1: *Production costs for sugarcane production (SACGA)*

There are a number of areas where one can fine-tune practices to keep the system as cost-effective as possible while keeping the production system operational:

The costs of owning equipment or overhead costs:

- The most effective way to reduce overhead costs is to ensure that machines are utilised effectively. The more hours a machine works in a year the more one can spread the cost. Typically a tractor should work for a minimum of 1 000 hours per year. A Bell loader should process at least 16 000 tons, any less makes it an expensive operation. A large road transport vehicle should haul at least 40 000 tons at a 25 km lead distance. Brazil and Australia are achieving more than double that. If one is considering a chopper harvester one should try to be cutting at least 80 000 tons annually. Consideration should be given to sharing of equipment in a consortium or cutting group to ensure that it is fully utilised during the year. A syndicate in Australia currently own one chopper harvester which cuts a crop of 180 000 tons of green sugarcane per year.

- Under-loading of sugarcane haulage vehicles is a serious problem in our industry and one out of every seven trips to the mill is unnecessary. On-board weighing systems on trucks can ensure that under-loading does not occur. It has been shown in practice that such systems can pay for themselves within 18 months and thereafter show a handsome profit. Weighing systems can also reduce the risk of overloading which results in unsafe roads and with the impending consignor – consignee legislation could prevent large fines.

- One should ensure a good maintenance programme is in place to guarantee reliability and a good resale value.

- Some mills are starting to introduce vehicle scheduling systems to improve vehicle productivity, resulting in massive savings. One user remarked "I never knew so many things were going wrong!" Getting started with such a system is difficult, but the effort is worth it.

- Ensure that benchmarking is carried out regularly to make certain that you are achieving "best practice".

Running or Operational costs:

- Fuel is a significant cost and the price is likely to continue escalating at a high rate. Using machines that are well maintained and matched for the job can prove to be very economical. Machines that are not matched for the job can result in twice the fuel consumption for exactly the same job! Never use a machine that is too big for the job.

- Preventative maintenance ensures that costly breakdowns and downtime is avoided.

- Monitoring systems improve driver discipline and coupled with incentive schemes, have shown that they can reduce fuel consumption, accidents, maintenance and insurance premiums. In one case, a monitoring system paid for itself within four months, purely by the fuel saved as a result of reducing excessive idling! Another has seen a significant reduction in accidents.

Operations:

- Traditionally, farmers have carried out more field operations than are absolutely necessary. The trend is moving towards reducing tillage and many are going for the no-till approach. These practices have shown massive savings in fuel and equipment requirements and increases in productivity.

- Many people rip to great depths and research has proven that in most instances this is not economical. The initial crop response does not last and often results in worse compaction. One should rather practise controlled traffic where row spacing is matched to that of machinery and machines are kept to permanent traffic zones. The SASRI Information Sheets provide valuable guidelines.

By following the guidelines above, a grower can make significant savings in mechanisation costs and have a more sustainable farming operation.

Dr Peter Lyne
Agricultural Engineer
South African Sugarcane
Research Institute
South African Sugar Association