Rail Transportation of Citrus a Priority

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Citrus fruit transported from packhouse to port facilities was once a high volume commodity for the railway service in South Africa. The older and original packhouses were built alongside rail sidings and therefore rail was the predominant method of transporting citrus to port facilities.

Rail continued to transport high volumes of citrus to port well into the late 1990’s; from the turn of the century road freight has since become the predominant method of transporting citrus. Rail infrastructure has been neglected over the years and the lack of service and reliability offered persuaded growers to transport citrus by road freight. This is not sustainable, even in the short term. Two of the mains reasons is the rapidly increasing road congestion within the main port cities and the fact that road freight has a carbon footprint more than twice that of rail freight. Rail freight in the fruit industry is currently utilized – but only in a small way – by the grape, avocado and citrus industries in certain regions and during peak weeks only. When still operating under the old regime of SAR (South African Railways) and later Spoorne, the infrastructure and service of rail was still reliable. More recently Transnet Group Holdings integrated the freight rail (Spoornet) and port service (Portnet) sector activities under the holding group structure of which the freight rail division is now known as Transnet Freight Rail (TFR). The main purpose of this was to consolidate and re-incorporate these dependent structures into a single structure to increase and broaden service delivery between them. Recent statistics indicate that less than 5% of the annual citrus export volume was transported by means of rail during the 2009 season (38 000 pallets). The move away from rail transportation to road transportation; in most industries, has resulted in the overcapacity of national road infrastructure. Rail transport has been proven to be a better alternative than road transport, in that rail freight can be directed easily into any of the major fruit ports and citrus break-bulk terminals in South Africa, all of which are directly linked to the rail network. At the same time, it promotes better physical and operational integration of seaports into the logistics chain. Besides the potential cost benefit, and the obvious reduction in carbon emissions increasingly being demanded by overseas markets, rail freight can provide better facilitation of product and cold chain handling in reefer containers, reduce wear of the national road system, and reduce bottlenecks at export terminals and cold storage facilities. Congestion and bottlenecks are ongoing issues within port environments and is a particular problem to the citrus industry during peak season; rail transportation offers a seamless mode of transportation from packhouse to port facilities. Retaining and expanding rail freight will not only complement existing road transport, but also serve as a competitive alternative, allowing the industry to reduce operational costs. A single freight train can potentially replace the equivalent of 32 road trucks and drivers each transporting a load of fruit. Rail transport is therefore more efficient than road transport where large volumes of fruit are concerned.
While recognizing that rail transportation offers huge potential to the citrus industry, we also recognize that in order to shift volume on rail, rail must be competitive and in addition offer a reliable, secure and efficient service. There are two methods which are currently used to transport citrus by rail, the conventional break-bulk method railed from packhouse to port facilities and by container where citrus is stuffed ambient at packhouse which is transported by rail direct to container terminals. Rail being distance and volume dependant to remain competitive means rail may not be a competitive alternative to all citrus producing regions. An area where rail has been identified to potentially offer a competitive alternative is the Limpopo province citrus areas of Hoedspruit, Letaba, Tzaneen, Letsitele, Musina and Tshipise where 30% of total citrus exports are produced. Citrus is transported from this region but only in a small way, during the 2009 citrus season only 9% of citrus exported from this region was transported by rail. There are challenges to increase citrus volume transported by rail from this areas using both methods. Not all packhouses are linked to rail sidings directly from packhouse floor, those that are linked may not be confident in the rail service. The challenge to increase break-bulk rail volume will be to regain confidence in rail and to link packhouses to rail lines, the latter may require capital investment from TFR. Studies have shown that Valencia types are most conducive to load from ambient into containers, further studies may be required to investigate the viability of other fruit types to load this way. A constraint to increase the current container operation may be the ability for a single packhouse to load a container of fruit that meets the specific market requirement which can be packed in time to meet vessel stack deadlines.

The potential for this operation has been recognized by export agents who play an important role in managing the process and developing the service further.

The Western Cape and Eastern Cape regions have shown high growth in containerized exports and growth can also be seen of containers loaded at inland cold storage facilities or loaded directly at packhouse. This development has placed less of a demand on road infrastructure within port cities as containers are transported from inland direct to the port container terminal. Evidence suggests that this trend is based on the fact that the close proximity of production regions to port container terminal facilities reduces the overall cost of transportation. The alternative of loading product inland; like the Northern regions, is to send the fruit to port facilities where the containers are then packed. The difference between transporting a consignment of fruit to an inland facility and packing a container is less than transporting the consignment and packing in port. The reason being is that the inland container transport cost subsidizes the total cost of transport from packhouse to container terminal (Packhouse – Cold Store – Container Terminal). The possibility exists that rail transportation could subsidize the total cost of transportation for Northern production regions by transporting fruit to an inland hub facility by road and then the balance of the journey transported by rail. The rail hub concept is deemed unfeasible in the Western Cape and Eastern Cape region as the distance travelled between packhouse and port is not subsidized by rail. This exercise could have tremendous potential to create a seamless logistics chain from packhouse to port, thus the potential for port congestion could be reduced or eliminated. Railed cargo is better managed and controlled as the tracking and information flow is available throughout the transport journey to destination. A further advantage is that railed cargo receives priority over road transportation at port terminals and cold stores as rail incurs demurrage if not offloaded within specific time, the cost of demurrage charged to the receiving facility. In order to expand rail transportation to meet a reasonable target of 30% of total citrus exports, the rail hub concept is being explored to evaluate the feasibility and viability of such an operation.

It is imperative that the use of rail transportation is increased to ensure the industries competitiveness. The CGA are working alongside the 'Tonnage off Tar' initiative to identify potential for rail to once again become a competitive and feasible solution to the citrus industry. This will be done by first assessing the comparative cost between rail and road transport, identifying immediate potential to expand rail usage and then by exploring ways of linking packhouses to rail in the longer term.