

Delta rice mill



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Delta Rice Mill Case Analysis I Identifications of problems in Delta rice mill operations After closely look at the case, we find out that there are some problems with Delta rice mill. * The most important issue here is that Delta rice mill still uses old, unreliable equipment to produce its rice products. Old and unreliable equipment means frequent break- down and high maintenance, which is not cost efficient. * The “ arbitrary set of rules” that Delta rice mill uses to forecast the upcoming year’s sales is not appropriate, which can be seen from the significant difference between the estimated number and the actual ones.

This is the main reason that causes “ so many peaks and valleys” in the production schedule. * Another problem in the operations management of Delta rice mill is that “ the production workers prefer to dedicate one (packing) line to each size (of pouch)” even though “ the packing lines can be adapted to run any one of the various pouch sizes”. Because customer demands for three pouch sizes of rice products are different, this method of allocating each pouch size to each packing line can result in low use of packing lines. Another problem in the operation is that “ the volume of rice being processed is determined by the production schedule for the packing plant”. There are five instant-rice processing lines while there are packaging lines , which means that in order to coordinate with packaging lines, the processing lines may not reach their full capacities. II Solutions to improve the operation performance in Delta rice mill * Delta rice mill should invest in building a new production line with the latest technology and most advanced production equipment.

The brand-new production line would greatly improve the quality of products and productivity. The reduction of overtime, temporary workers and the minimization of down time would cut down the production cost and lower the price. * According to the following chart, we can see that there is a trend in the total sales of rice product in the past three years. * Therefore, Delta rice mill should forecast the monthly sales of year-four based on the average growth rates of the past three years instead of simply dividing the previous year's total sales by 12.

Based on the accurate forecast of the sales, Delta rice mill could develop more reasonable production schedule and inventory policies to reduce total costs and still meet their on-time delivery goals. According to the more accurate forecasting method, the anticipated sales in Year Four and corresponding inventories every month are as follows:

	Safety stock	Min inventory	Target inventory	Max inventory
Jan	9786	29358	39144	58717
Feb	17430	52291	69722	104582
Mar	13480	40439	53918	80877
Apr	22578	67733	90311	135466
May	10615	31845	42460	63690
Jun	21926	65778	87704	131556

Jul	9297	27892	37190	55784
Aug	22225	66675	88900	133350
Sep	17277	51832	69109	103664
Oct	13035	39104	52139	78209
Nov	20236	60708	80944	121416
Dec	12394	37183	49577	74365

* Delta rice should allocate the packing lines to different pouch size of rice product according to the customer demands since “ the packing lines can be adapted to run any one of the various pouch sizes”. Based on demand, 14-ounce pouch is the most popular, 7-ounce second and 4-ounce is the last.

Therefore, Delta rice can run all the three packing lines to pack the 14-ounce pouch size.

When it is done with the 14-ounce pouch size, it can do the same thing to the rest pouch sizes. * Another solution to deal with the inventory management is that Delta rice mill can fully produce the instant rice in its processing lines and put all the processed rice into big bins. When the mill gets the orders from customers and know the requirement for each size, it then can pack the rice and reach the full capacities of the packaging lines. In this way, the mill can minimize the inventory it has to stock instead of stocking inventories of each size according to corporate inventory policy.