Reduce Incoming Materials While Exercising Profitable By-Product Disposition

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ABSTRACT

Operating any size brewery requires the input of various ingredients to maintain production. The form and packaging of these key ingredients directly impact the recycling and or disposal of non-essential packaging items. The efficient and knowledgeable purchase of these items and packaging specifications can greatly reduce the volume of materials to be dealt with. Also, the disposition of all resulting by-products of brewing may vary because of brewery location. The disposition of wet brewers grain (WBG), at 80% moisture, may see substantial new resistance due to new stronger agricultural environmental regulations. The larger farms may just eliminate feeding WBG due to increased cost of containment. Pressed grain, WBG pressed to about 70% moisture, is replacing WBG and is much more economical than drying for large breweries. Brewers yeast is seeing strong competition from imports. Even stronger competition comes from spent yeast from domestic industrial ethanol production. This yeast results from fermentation of syrup using Saccharomyces and is marketed as brewers’ yeast. All these factors can impact the economics of operations and the environmental perception of the brewery.

Keywords: Brewers Spent Grain, Brewers Dried Yeast, Pressed Grain, Wet Brewers Grain

SINTÉSIS

El operar una cervecería de cualquier tamaño requiere la colaboración de varios ingredientes para mantener la producción. La forma y el empaquetado de estos ingredientes clave impacta directamente el reciclado y/o eliminación de artículos de empaquetado no esencial. La compra eficiente y con conocimiento de estos artículos y especificaciones de empaquetado pueden reducir grandemente el volumen de materiales con los que hay que lidiar. También, la eliminación de todos los productos derivados de la elaboración de la cerveza varía debido a la ubicación de la cervecería. La eliminación de granos cerveceros húmedos (WBG), a 80% de humedad, pueden una resistencia subancial nueva debido a nuevas y más fuertes reglas agrícolas del ambiente. Las granjas más grandes pueden eliminar la comida de WBG debido al incremento en el costo de contención. El grano prensado, o WBG prensado a 70% de humedad, esta reemplazando al WBG y es más económico que el ser secado por cervecerías grandes. La levadura cervecería esta siendo una fuerte competencia de las importadas. Mayor competencia aún viene de la levadura gastada de la producción de etanol industrial doméstica. Esta levadura resulta de la fermentación del jarabe usando Saccharomyces y se marqueta como levadura cervecería. Todos estos factores pueden impactar la economía de las operaciones y la percepción ambiental de la cervecería.

INTRODUCTION

REDUCTION OF ALL TYPES OF INCOMING MANUFACTURING MATERIALS IS KEY

It is very important to spend some time reducing the volume of indirect materials that accompany necessary ingredients into your plant. The most costly receipt of goods is palletized. You not only have the odd sized pallet, but often extraneous banding, stretch wrap, etc. You can implement programs to standardize incoming pallets, strapping, wrapping, but a more effective plan is to try to eliminate palletized shipment. The next best method of shipment is to receive individual containers, then you do need to recycle the containers. Better yet is material packaged in a returnable container. The best is just to receive the product in bulk, no recycling required!
REDUCING INCOMING MATERIALS
WHILE EXERCISING PROFITABLE
BY-PRODUCT DISPOSITION

Operating any size brewery requires the input of various ingredients to maintain production. The form and packaging of these key ingredients directly impact the recycling and/or disposal of non-essential packaging items. The efficient and knowledgeable purchase of these items and packaging specifications can greatly reduce the volume of materials to be dealt with. Also, the disposition of all resulting by-products of brewing may vary because of brewery location. The disposition of wet brewer’s grain (WBG), at 80% moisture, may see substantial new resistance due to new stronger agricultural environmental regulations. The larger farms may just eliminate feeding WBG due to increased cost of containment. Pressed grain, WBG pressed to about 70% moisture, is replacing WBG and is much more economical than drying for large breweries. Brewer’s yeast is also seeing strong competition from both imports and even stronger from distillation fermentation of syrup using Saccharomyces and harvesting this yeast to be marketed as brewer’s yeast. All these factors can impact the economics of operations and the environmental perception of the brewery.

**FIGURE 1**
Reduce Incoming Indirect Materials

**FIGURE 2**
70% Pressed Brewer’s Grain Farm Storage
“Brewer’s dried yeast is the dried, non-fermentable, non-extracted yeast of the botanical classification Saccharomyces resulting as a by-product from the brewing of beer and ale.”

This is the current definition number 96.4 in the current Association of American Feed Control Officials Inc. official publication. Many large breweries are either unaware or not concerned about other fermentation companies marketing of millions of pounds of Saccharomyces currently defined as brewer’s dried yeast. This is radically altering the current by-product brewer’s dried yeast market!

Commodity prices have a direct impact on all feed related by-products. This year a marked decline in corn prices has severely reduced feed related by-product revenues. This has directly reduced all feed grade brewers grain prices. A further problem may be the disposition of 80% moisture brewers grains. Pressed grains, approximately 70% moisture, offer a great opportunity to avoid costly drying while marketing to the prime dairy market. An example of this advantage is the fact that a 50,000 lb load of wet brewer’s grains has 10,000 lbs of dry product equivalent. A 50,000 lb load of 70% moisture pressed grain contains 50% more dry product equivalent, 15,000 lbs of brewers dry grain! Two trucks of pressed deliver three trucks of wet brewer’s grain. Other major issues include the environmental issues on the farm and insurance issues for the haulers. Wet brewer’s grain trucks tend to be a much messier issue for all involved. Some states are enacting much tougher environmental regulations, which are becoming costly to larger regulated wet brewer’s grain users. Alternative feedstuffs are often fast becoming a preference to wet brewer’s grain.
The operation of any manufacturing plant requires careful planning for both the method of receipt of manufacturing ingredients and the most environmentally positive and profitable method of by-product disposition. The current low commodity prices may be with us for some time and may require more innovative handling of all by-products. Low commodity prices generally mean lower ingredient costs, but the environmental perception of a large beverage or food company is a major concern as well.

**SUMMARY**

*FIGURE 6*
Cash Corn Price History