

Inventory and

Inventory Management

(Rarely Understood, Financially Significant)

Inventory and Inventory Management

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Introduction

Inventory in a horse business includes your expendable supplies like hay, grain, supplements and medications that are consumed in less than one year. Inventory can also be horse tack, hand tools and other miscellaneous noncapital equipment that needs to be tracked and managed for insurance or tax purposes, or both.

Inventory is not just the quantity of supplies and material on hand; inventory can have a significant financial impact on your business. The financial impact not only includes the inventoried items cost, but also includes the expense to maintain and properly store inventoried items. To properly manage inventory, the inventory should include an inventoried item's purchase date, the quantity of inventoried items purchased, the total cost of the inventoried items purchased and an inventoried item's unit cost. Inventory is often referred to as 'cash at rest' – *and inventory does not pay interest*. The amount of cash tied up in inventory can be significant; therefore, its management is essential. Inventory management can help improve your profitability and maximize your available cash to improve and grow your business.

Some horse boarding, training and lesson businesses also sell tack for additional income and as a service to their customers. Horse businesses that sell tack need to manage and transact their tack sales. To support their customers, and not miss a sale, while still minimizing their 'cash at rest', they need to manage their on hand tack inventory and their tack reorder requirements.

There are several things to think about when you are setting up your inventory or starting to manage an existing inventory. What if your horses require different types of hay or grain? Your pregnant brood mares may require different types of hay or grain during their gestation period. Your performance horses may require different types of hay or grain during their training, show and idle periods? Many expendable supplies have an expiration date (shelf life). Hay is a good example. Hay needs to be stored above ground with good air circulation. Hay should also be stored away from direct sunlight. Hay stored outdoors without being covered will show a significant reduction in quality, dry matter and nutrients after only three months. No matter how your hay is stored, its nutritional value will decrease over time. Therefore, it is important to purchase your hay in quantities, not only at the best price, but to maintain its nutritional value. Your grain inventory requires many of the same considerations. Gain that is not properly stored can spoil or be wasted. Moldy grain can lead to sick horses and some cases, the dreaded colic.

Inventory can be valued in one of three ways, first-in, first-out (FIFO); last-in, first-out (LIFO); and weighted average (WAC). The first in, first out (FIFO) assumes the first items purchased are the first items used. This means that the older inventory will get used before the newer inventory, and the value of the inventory used represents the most accurate supplies' expense. The last-in, first-out (LIFO) assumes the last items purchased are the first items used. This means that the newer inventory will get used before the older inventory. The value of the inventory used will not represent the most accurate supplies' expense. The accuracy can be improved with '*Just In Time*' inventory management – what is needed, when it is needed, but not more than what is needed. The weighted average (WAC) method assumes that all inventoried items are identical. Weighted average (WAC) would not be used in a horse business and first-in, first-out (FIFO) is too difficult to manage. The easiest to manage from a minimum cash and expense perspective is first-in, last-out (LIFO) using '*Just In Time*' management and replenishment.

equineGenie Inventory

equineGenie enables you to track, manage and report on any type of supplies, capital and noncapital items you want to inventory. The inventory managed by equineGenie is not just its quantity. equineGenie's inventory management includes an item's purchase date, the quantity of an item purchased, the total cost of the items purchased and an item's unit cost. Embedded in equineGenie are AI (artificial intelligent) algorithms for predictive modeling, resource optimization and heuristic learning. equineGenie learns your business and makes sure you have the supplies and other inventoried items on hand when you need them, but not more then you need - '*Just In Time*', thus conserving your cash, minimizing your 'cash at rest' and providing an accurate supplies' used expense. equineGenie reminds you when an item in inventory needs to be replenished.

equineGenie enables you to identify and manage your different types of inventory. For example; your forage in equineGenie has a primary account is, 5520 – Horse, Forage (Hay). If you have different types of forage you need to purchase, manage and inventory, equineGenie assists you in identifying the forage types with subaccounts associated with the primary account. **For example;** if you feed both timothy hay and alfalfa, each type of forage can have its own subaccount, 5520.001 – Timothy Hay and 5520.002 – Alfalfa. equineGenie will account for your forage cost in total and the cost of each type of forage used. The same primary account / subaccount opportunity applies to any item you need to purchase, manage and inventory. In equineGenie, as many as 999 subaccounts can be associated with any primary account.

Make Believ	ve Ranch	Mako Believe	Ranch
	General Ledger - Cha	rt Of Accounts	
Account Categories	Accounts	SubAccounts	

Primary and Subaccounts Example

Detailed information on setting up your chart of accounts and subaccounts is available in a Genie Academy training document: <u>20230914112044</u> <u>427163.pdf (photobiz.com)</u> (Financial Setup: page 3 -5).

equineGenie values inventory using the first-in, last-out (FIFO) method and '*Just In Time*' replenishment. This equates to an inventory value bases on an item's last purchase cost. equineGenie's inventory management helps to minimize inventory costs and maximize supply expense accuracy by receiving expendable supplies on an as-needed basis, '*Just in Time*'. To minimize the inventory quantity and its cost the resource optimization and predictive modeling algorithms are based on an assigned safety stock and a supplier's delivery time. This maximizes inventory turnover and minimizes inventory waste, loss and 'cash at rest'.

equineGenie inventory management requires that you establish your inventory parameters before you can measure your existing inventory or any new inventory. Because inventory has a quantity

and a financial value, you need to establish an inventoried item's unit of measure and its unit cost. To establish an item's unit of measure you need to consider how the item is used or consumed.

For example: horse forage can be purchased in many configurations, by the bale, by the bag, by weight, loose, etc. However, horse forage is feed by the pound or kilogram in a well-managed horse business. Therefore, it is inventoried by its unit of measure because it is consumed by its unit of measure and its inventory is reduced by it unit of measure. equineGenie automatically manages your horse forage inventory daily based of the established unit of measure and how much is used or consumed each day by each horse.

'I know, you feed by the flake – weight several flakes to get an average weight of each flake. Embedded in the equineGenie's 'Horse - Horse Nutrition' screens are a video link on how to easily measure the weight of the feed you are feeding.'

You also need to establish a safety stock for your inventoried items so you have what you need when you need it, but not more than you need to minimize waste, spoilage and 'cash at rest'. If the consumption rate of an inventoried item changes, equineGenie learns the change and automatically readjusts any replenishment reminders.

Your items inventory category, supplier, safety stock, unit of measure and delivery lead time is established on the equineGenie '*Business Operations – Item Supplied Setup*' screen.



Business Operations – Item Supplied Setup

An item supplied setup is only done once for each purchased item unless a change needs to be made to an already set up item. An item's set up makes the item available on any associated equineGenie screens without having to be reentered. Detailed information on setting up a

purchased item is available in a Genie Academy training document. The link to the training document is: (20231006234514 429288.pdf (photobiz.com)) (Items Supplied Setup: page 5).

Make Beli	MB	lake elieve Ranch					
		Su	pplies By Supplie	rs			
Supplier	Item Supplied	Units	Category	Primary	Safety Stock	Lead Time (days)	Comments
Dr's Choice Supplements	equi-shine Pellets	ounce	Horse Supplements	0	75 ounce	7	
Mt. View Vet	Ivermectin	dose	Horse Dewormer	0	2 dose	2	
NCFS	Alfalfa	pound	Horse Forage	0	100 pound	2	
NCFS	Pine Shavings - Bale	bale	Horse Bedding	0	4 bale	2	
NCFS	Purina - Omolene 200	pound	Horse Grain	0	50 pound	2	
NCFS	Timothy Hay	pound	Horse Forage	0	300 pound	2	
Schneider	Ridina Helmet	each	Tack Store	1	2 each	2	

Supplies Report Example

There are many other equineGenie supplier and supplies reports available in the business operations report section.

An inventoried item's purchase date, purchased quantity, total quantity purchased cost and unit cost are established when an item is purchased on the equineGenie 'Business Operations – Purchases' screen.



Business Operations – Purchases

The quantity of the selected item to be purchased needs to be consistent with the item's unit of measure identified on the '*Business Operations – Item Supplied Setup*' screen.

For Example: If you are purchasing horse forage, the unit of measure should have been identified as pounds or kilograms when the type of horse forage being purchased was setup on the *'Business Operations – Item Supplied Setup'* screen. Therefore, the quantity of horse forage being purchased needs to be in pounds or kilograms. If you are purchasing a ton of horse forage the quantity entered would be 2,000 pounds. If you are purchasing a metric ton the quantity entered should be 1,000 kilograms (~2,204 US pounds).

equineGenie uses the total cost of the quantity of the item purchased to calculate the item's unit cost. The unit cost of an item is used to calculate the value of the item's quantity in inventory. An item's unit cost is also used to assign the item's expense when it is used or consumed.

For Example: If you are purchasing grass hay, and you pay \$75 for 500 pounds, the unit cost is \$0.15 for each pound. If you have 600 pounds of grass hay in inventory after the purchase is complete, equineGenie values your grass hay inventory at \$90. If you feed 12 pounds of grass hay to a horse each day, equineGenie automatically assigns \$1.80 per day of grass hay expense to that horse.

Detailed information on purchasing an item is available in a Genie Academy training document. The link is:(<u>20231006234514_429288.pdf (photobiz.com)</u>) (Purchases: page 9).

Mak	e Believe	Ranch						Make R
March	Current Vear Durchases							
Date	Supplier	Product	Invt	Quantity	Receipt	Tax	Cost	Comments
Mar 1	Dr's Choice Supplements	equi-shine Pellets	Yes	800.00 ounce	DRC-0345	*	101.00	
Mar 4	Schneider	Riding Helmet	Yes	2.00 each	SS-9873-2	8.12	288.02	
Mar 8	NCFS	Alfalfa	Yes	250.00 pound	NCFS-1234		45.00	
Mar 8	NCFS	Timothy Hay	Yes	750.00 pound	NCFS-1234		189.50	
Mar 8	NCFS	Purina - Omolene 200	Yes	250.00 pound	NCFS - 1234		109.75	
Mar 11	NCFS	Pine Shavings - Bale	Yes	5.00 bale	NCFS-1278	•	40.00	
Mar 15	Mt. View Vet	Ivermectin	Yes	5.00 dose	MTV-45789-2		25.75	
Mar 16	Schneider	Riding Helmet	Yes	3.00 each	SS-10297-3	12.18	432.03	
Mar 18	NCFS	Timothy Hay	Yes	750.00 pound	NCFS-1245		189.50	

Current Year Purchases Report Example

There are many other equineGenie purchases reports available on screen two of the purchases screens and in the business operations report section.

equineGenie Inventory Management

Remember, inventory has both a numerical value and a financial value. Inventory is not just a number of items. To manage inventory, both measurement parameters need to be established before an inventory count can be taken. If an inventory is just being set up, purchasing an item will

establish its initial quantity from the number of items purchased. An item's unit cost is calculated by dividing the total purchase cost by the quantity purchased. To establish the measurement parameters for an existing unmanaged inventory, you need to establish the unit cost of each item in inventory before a physical count can be taken.

Using equineGenie, you can easily establish an initial quantity for a new inventory by purchasing an item. equineGenie will automatically calculate the item's unit cost as explained previously. For an existing inventory you need to establish an item's unit cost by entering the item's last purchase quantity and total cost. *Your best approximation will work if you cannot locate or remember the item's last purchase.* To get the actual value of an item in an existing inventory you need to do a physical count of the items already in inventory.

An inventory count can be done at any time. Counting inventory can be time consuming and expensive. Good inventory business practices will extend the time between taking inventory. Taking inventory every three months is probably a good idea until you fell you have good inventory management in place. Good inventory business practice starts with business discipline. Your business discipline is as important as your horse management discipline. Keep your purchased items up to date, execute your purchase reminders on time and enter your purchases in a timely manner.

Taking Inventory in equineGenie

An item's physical count can be recorded in equineGenie using the '*Business Operations* – *Supplies On Hand*' screen. You can enter an item's count, by location. equineGenie automatically adjusts the amount of inventory on hand and calculates its value based on an item's last unit cost. Remember, you must have previously established an item's unit cost before taking inventory.



Business Operations – Supplies On Hand

Detailed information on taking inventory and entering the inventory count is available in a Genie Academy training document. The document link is: <u>20231007162122</u> <u>429330.pdf (photobiz.com)</u> (Supplies On Hand: page 4).

	Make Belle	Ranch			
ltem	Category	Last Count	Last Date	Unit Cost*	Value**
Alfalfa	Horse Forage	210.00	Mar 16, 2024	0.1800	37.80
equi-shine Pellets	Horse Supplements	800.00	Mar 8, 2024	0.1262	100.96
Ivermectin	Horse Dewormer	4.00	Mar 15, 2024	5.1500	20.60
Pine Shavings - Bale	Horse Bedding	23.00	Mar 15, 2024	8.0000	184.00
Purina - Omolene 200	Horse Grain	250.00	Mar 8, 2024	0.4390	109.75
Riding Helmet		4.00	Mar 16, 2024	144.0100	576.04
Timothy Hay	Horse Forage	450.00	Mar 16, 2024	0.2526	113.67

Inventory and Inventory On Hand Report Examples

Make Bel	ieve Ranc	h		Mako Belleve Ranch				
	Alfalfa	a - Inventory	Receipt Report					
Inventory Categ	ory: Horse Forag	ge						
Receipt Date	Quantity Received	Total	Receipt Comments	Inventory Comments				
March 8, 2024	250.00 pound	250.00						
*Note: A negative be entered	adjustment shou as income.	ld be entered as	an expense. A positi	ve adjustment should				
				Make Bel	ieve Ranc	h		Mak Bell
				Make Bel	ieve Ranc	h Hay - Invento	ory Receipt Repo	Mak Belli (
				Make Bel	ieve Ranc Timothy I	h Hay - Invento	ory Receipt Repo	S Mak Bell (
				Make Beli	ieve Ranc Timothy I ory: Horse Fora Quantity Received	h Hay - Invento ge Total	ory Receipt Repo Receipt Comments	Mak Bell (t Linv Con
				Make Beli Inventory Categ Receipt Date March 1, 2024	Timothy I ory: Horse Fora Quantity Received 750.00 pound	h Hay - Invento ge Total 750.00	ory Receipt Repo Receipt Comments	Mak Belli (rt Invi Con
				Make Beli Inventory Categ Receipt Date March 1, 2024 Quantity Consul Last Physical Inve Quantity Consul Last Physical Inve Quantity On Un Value On Mar 16, 2024 - A	Timothy J ory: Horse Fora Quanty Received 750.00 pound tetived: 750.00 mmed: 320.00 entory: 450.00 Hand: 450.00 Hand: 50.2526 Hand: 5113.67 djustment:	h Hay - Invento ge Total 750.00 Mar 16, 202 20.00 pound	Pry Receipt Report Receipt Comments	Mak Bet (t Cor

There are many other equineGenie inventory reports available on the supplies on hand screen and in the business operations report section.

Using and Consuming Inventory in equineGenie

There are inventoried items that are set up to be used or consumed on a predetermined schedule. These items are automatically removed from inventory without any user intervention. A scheduled item's safety stock and delivery lead time are used by equineGenie in the predictive modeling and resource optimization algorithms to remind you when the item is below safety stock and needs to be replenished. This conserves your cash and makes sure you have what you need, when you need it, but not more than you need – '*Just In Time*' inventory management.

An example of predetermined and scheduled inventory items is your horses' nutrition and bedding. When each horse's feed, supplements and bedding amount is scheduled in equineGenie, equineGenie automatically removes from inventory the total amount of each type of feed, supplements and bedding used for each horse daily.



Horse Nutrition and Bedding – Amount and Schedule Setup

Detailed information on setting up a horse's nutrition and bedding is available in a Genie Academy training document: <u>20230614175540_419318.pdf (photobiz.com)</u> (Horse Nutrition: page 4-10,17).

Nutrition and Bedding Report Examples



There are many other equineGenie nutrition and bedding reports available on the nutrition screen and in the horse report section.

There are inventoried items that are used or consumed, but not setup on a predetermined schedule. Those items can be easily removed from inventory when they are used or consumed. A nonscheduled item's safety stock and delivery lead time are also used by equineGenie in the predictive modeling and resource optimization algorithms to remind you when the item is below safety stock and needs to be replenished. This also conserves your cash and makes sure you have the item you need, when you need it, but not more than you need '*Just In Time*' inventory management.

An example of a scheduled task using an inventoried item that is not automatically removed from inventory is a horse preventative care task. Each horse's preventative care schedule can be set up in equineGenie. equineGenie will remind you when a horse's preventative care is due. When the preventative care is administered, equineGenie does not remove any supplies that were used from inventory. You need to remove the supplies used by selecting the 'Supplies Used? Go To Enter Supplies' button. Selection of the button will display the 'Supply Used' screen where the supply used can be deducted from inventory and expensed to the horse receiving the preventative care.



Horse Preventative Care – Supplies Used

Detailed information on administrating a horse's individual or herd preventative care is available in a Genie Academy training document. The link is: <u>20230707174618</u> <u>421126.pdf (photobiz.com)</u> (Preventative Care: page 11-32).

There are many other equineGenie preventative care reports available on the preventative care screens in the horse report section.

Another example of a task using an inventoried item that is not automatically removed from inventory is when a mare is inseminated. When a mare is inseminated, equineGenie does not remove any supplies that were used from inventory. **For example;** mare insemination pipettes, an ovulatory agent, caslick material, etc. You need to remove the supplies used by selecting the 'Supplies Used? Go To Enter Supplies' button. Selection of the button will display the 'Supply Used' screen where the supply used can be deducted from inventory and expensed to the mare.

equineGenie Mare Reproduction - Breeding	Reproduction – Breeding Sup	oplies	
 <i>E</i> Mare Breeding (page 2 of 2) <i>E</i> Mare Bred Date & Time Mare Bred <i>Administered By</i> <i>E</i> <i>Ovulatory Agent Used</i> <i>E</i> <i>E</i> <i>E</i> 	Breeding Comments		
Caslick Removed? No Date Business Cost Cost S Cost Supplies Used? Go To Enter Supplies V	C Rebreed Image: Control of Co		
Mare Breeding Dates - Current Year Mare Breeding Dates - Dates Specified All Mare Breedings - Current Year Caslicks Status *Additional Mare Breeding Reports are available in the Horse Reports: Mare Reproduction	equineGenie Business Operations - Supplies Used	Supplies Used Comments	- • ×
Previous Page Supplies Used	Unit of Measure:	Popup And Red Flag equine Genic Notes	2 2 2
	6 U		

There are many other tasks and activities where the use of an inventoried item is not predetermined or scheduled. The associated screen will all have the 'Supplies Used? Go To Enter Supplies' button that can be selected to remove any items used from inventory. Selection of the 'Supplies Used? Go To Enter Supplies' button will display the 'Supply Used' screen. Selecting 'Enter' on the 'Supply Used' screen will close the screen and redisplay the previous screen.

There are also some tasks and activities where a supply is used, but the screen where the information is entered does not have a '*Supplies Used? Go To Enter Supplies*' button. If the task or activity uses an item that is in inventory, the item can be removed from inventory by selecting the '*Supply Used*' screen. The '*Supply Used*' screen is available for selecting on business operations menu, '*Business Operations – Supplies Used*'.

Horse Tack Sale Inventory

If your horse business sells tack, equineGenie can transact your tack sales and manage your tack inventory if any tack supplies were included in the sale. A sale that is not invoiced is transacted on the '*Customer / Clients Billing – Service/Product Receipt*' screen.

For example: if you sold a riding helmet you would transact the helmet sale and then remove the helmet from your inventory. If the riding helmet sale reduced your riding helmet inventory below your riding helmet safety stock amount, equineGenie will alert you the purchase more riding helmets.

	Sales Receip		pie	
	Sales Re	ceip	t	
Make Believe	Ranch			Make Believe Ranch
Sally Jones				03-1523-1 Friday, March 15, 2024
Sally Jones Payment Method	Transaction #]		03-1523-1 Friday, March 15, 2024
Sally Jones Payment Method Check	Transaction # 5678	-		03-1523-1 Friday, March 15, 2024
Sally Jones Payment Method Check Account	Transaction # 5678 Description		mount	03-1523-1 Friday, March 15, 2024 Comment

Tack Inventory Reorder Reminder

	Active Remind March 15, 2024	lers	
Friday, March 15,	2024		
Supply Below Safety	/ Stock: Riding Helmet		
	Task Information	×	
	March 15, 2024		
	Place an order for Riding Helmet		
	Close Go to	Form	

Tack sales that include tack supplies in inventory are removed by selecting the 'Supplies Used? Go To Remove Supplies' button. Selection of the button will display the 'Supply Used' screen where the supply used can be deducted from inventory.

equineGenie Customer/Client - Receipt	orse Tack Sale – Tack Supplie	es
Customer/Client Receipt	Receipt Comments	
C Horse Enter Receipt Resson/Purpose Image: Control of the control of	equineGenie Business Operations - Supplies Used	- a x
Image: Received CC? Control of Contr	E Supplies Used/Removed Date ♥ ♠ Select The Item Used / Removed ♥ ♥ E Item Quantite ♥ E	Supplies Used Comments
View and Print Receipt	Unit of Measure: E Another Item	Popup And Red Flag
Supplies Used —		Notes

Riding Helmet Inventory Report

Make Bel	ieve Ran		Make Belleve Ranch				
Riding Helmet - Inventory Receipt Report							
Inventory Categ	ory: Tack Stor	re Merchandise					
Receipt Date	Quantity Received	Total	Receipt Comments	Inventory Comments			
March 6, 2024	2.00 each	2.00					
March 16, 2024	3.00 each	5.00					
Quantity Re Quantity Consu Last Physical Inv Quantity On *Un Value On	ceived: 5.00 mmed: 1.00 entory: 4.00 Hand: 4.00 it Cost: \$ 144.0 Hand: \$ 576.0	Mar 16, 2024 100 4					
Mar 16, 2024 - A	djustment:	each					

Detailed information on transacting a receipt sale is available in a Genie Academy training document. The link is: <u>20230817120921</u> <u>424700.pdf (photobiz.com)</u> (Customer Billing Management: page 33 - 35).

Remember, equineGenie tracks, manages, analyzes, reports, teaches and raises your horse business I.Q.

Here's to successful inventory management!

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Dr. Valentine taught Equine Business to graduating seniors in the Equine Science Department at Colorado State University. He has been involved in the horse business for many years. If you have any questions, you can reach Bob at bob@genieatwork.com, or call him at 970.682.2645 (office) or 970.231.1455 (mobile).