Farming

So you want to build a farm? Your own little place to grow and prosper, finally reap what you sow–not in the sense of the Golden Rule or a dramatic cliché, but the very real one of harvesting crops. When considering all the hard work, startup capital, and potential complications many may blance at the thought of taking time off from the adventuring life to toil with such menial concerns. For those hardy enough to set off on the endeavour, however, farms may prove a lucrative enterprise and worthwhile investment.

New Mechanics

Tally Workers: Individual peasants may each work 40 acres of field\variable amount of pasture derived from that number. Player Characters who are present during planting or harvesting seasons can work 40 acres +/- (Con Mod * 10).

Plant: Divvy up the land as you'll graze\plant it.

Misfortune: Roll on the misfortune table.

Harvest: Roll 2d20 for each type of crop present. The first roll is for *bounty* and the second is for *blight* (add the crop's Resilience score to the latter). Blight losses are applied after bounty results.

Harvest Results

Roll	Bounty (% of Average Harvest)	Blight (% Bounty Lost)
1	50%	75%
2-5	75%	50%
6-8	90%	25%
9-16	100%	5%
17-18	125%	~
19-20	150%	~

Crop Volatility Pushes the result down that many steps if the Bounty roll was 8 or below, or up that many steps if the roll was 14 or up. Thus, a roll of 9-13 is average for volatile crops.

Livestock Handling: Did you slaughter the livestock and gain the meat? If so gain the appropriate amount of meat, then gain (remaining livestock * 0.5) more livestock to represent them breeding.

Processing: Raw goods can be processed or turned into alcohol, at a rate of 1,000 lb. of raw resource per structure per week. Upkeep must be paid during this operational time.

Storage: Goods not stored locally must be shipped to be sold, else sold to travelling merchants. Either way, the cooper must produce the needed pallets, at a rate of 25 pallets\week, during which time upkeep must be paid.

- **Acquiring Land**: Awarded by a government or temple, purchased with coin, or settled from lawless wilderness, the farmer needs land.
- **Acquiring Farmfolk**: Already living in situ, enticed with offers of a better life than they have in an overcrowded environment, or drawn to the idea of a place to call their own, somehow or other the farm must be people. Whilst a single farmer could theoretically tend to 40 acres on their own, this leaves many things to chance and renders extended absences perilous to the farmer's livelihoods. Families of peasants are the prefered way of sustaining farms.
- **Acquiring the Facilities**: All manner of processing and storage facilities are necessary to produce endproducts from raw crops, and those which one cannot provide personally must be paid for out of the farm's potential profits.
- **Planting the Crop**: The crops and wildlife are procured. Generally speaking seeds to cover an acre are the price of one pound of the plant. Crops you already produce and successfully harvest needn't have their seeds purchased. Once the amount of acres available and how many of those acres there are people to work has been reckoned, tthe only thing left to do is decide how the land will be used. Then, it's time to get to work on the year's planting.
- **Await the Harvest**: Kobolds, wolves, blight, fires, war, disease, and any other manner of misfortune may easily befall the countryside. Whether you are there to face it or not, your farm faces many potential risks.
- **Process the Goods**: Once all is said and done, the harvest will be brought in. How many animals to cull must be decided upon, and crops must be processed. If any are set aside for distilling, this is handled–and then that alcohol which has been sufficiently aged is taken out and ready for consumption or sale.
- **Repeat**: Farmlife falls into a longform routine over the course of years, where one hopes for normalcy because breaks from the routine tend to signal something has gone or is about to go terribly wrong. Of course, you needn't be around to supervise all of this–land owners generally appoint bailifs to see to the nitty-gritty details of day-in, day-out labour whilst they're off enjoying life in a town, city, or dungeon of some description far away. Live-in landlords can earn the favour of their people by presence and a feeling of community, but they may also elicit their ire as a walking representation of perceived mismanagement or actual cruelty visited upon them. Generally speaking, if you're hoping to one day hide out on your farmland, avoid mistreating your peasant families.

Climate

Before one can decide what to grow, they must consider what is tenable on the land in question.

Crops & Climes

Crop	Climate Required	Average Pounds per Acre
Wheat	Non-Arctic/desert	600
Barley	Non-Arctic/desert	1,000
Grapes	See: Growing Grapes	450
Rice	See: Growing Rice	859
Soybeans	Non-Artic, Tropic^	375
Garlic	Non-Arctic/desert	500
Cinnamon	Tropical (Trees)	100(x2/year) After 1st Yr
Peppers	Non-Arctic/desert	75
Tea	Tropical	187
Saffron	Non-Arctic/desert	0.5
Cotton	See: Growing Cotton	100
Poppy	Non-Arctic	10
Sugar Cane	Tropical, Swamp	11,250
Potato	Non-Tropical/desert	1,000

^Soybeans may be farmed year-round in Tropical conditions, where they grant three harvests/year

Growing Rice

Rice requires constantly damp soil, which is generally speaking achieved in one of three ways:

- Wetlands (Swamps that have been drained)
- Floodplanes (Rivers or grassland that flood reliably)
- Terraces (Tropical hillsides irrigated for farming)

Growing Grapes

Special conditions are required for grape cultivation. About 1/10th of all Grasslands are good for growing grapes. This is Winecountry, and known Winecountry is four times more expensive to procure than normal.

Growing Cotton

Cotton requires one of the three following:

- Floodplanes (Rivers or grassland that flood reliably)
- Wetlands (Swamps that have been drained)
- A significant river and sophisticated irrigation.

Refinement

Rice can be cooked straight out of the ground, but many crops require further stages of development before they can be consumed or sold as an endproduct. Furthermore, if one desired to produce **alcohol** a distillation process must occur.

Crop Refinements

Crop	Process	Endproduct
Wheat	Milling^	Flour
Barley	Milling^	Barleyflour
Soybeans	Boiling + Straining	Soymilk
Soymilk	Refining	Tofu
Cinnamon (bark)	Peeling (Immediate)	Cinnamon
Pepper (spikes)	Threshing + Drying (1/4ths)	Peppers
Tea (raw)	Refining + Drying (1/4ths)	Tea
Saffron (bulbs)	Drying	Saffron
Cotton (seedy)	Ginning	Cotton
Poppy	Pulverizing, Drying^^	PSC, Opium
Sugar Cane	Milling, Refining (1/10ths)	Sugar

^This process yields **Straw**, 1lb milled Barley/Wheat produces 0.5lbs of Straw ^^Undried poppy is **Poppy Straw Concentrate (PSC)**, which may be soaked in alcohol later to convert it to a 10% opium liquid.

Alcohol

For our purposes a barrel contains 100 litres. **Mugs** are half-litres, **bottles** are one litre, and **gallons** are 4 litres.

Distilling

Distilling alcohol is not always a simple proposition. While a still is sufficient for most forms of alcohol, **brewing** is required for Beer. A single barrel contains 100 litres of liquid. There is a **conversion loss** of 50% when converting the crop to alcohol–in numerical units. For example, 200 pounds of wheat will produce 100 litres of alcohol (1 barrel's worth).

Distillation

Crop	Alcohol	Price per Barrel
Wheat	Whiskey	4gp
Potato	Vodka	4gp
Rice	Sake	18gp
Sugar Cane	Rum	35gp
Barley/Flour	Beer/Ale	5gp
Grapes	Wine	20gp

Flavouring of any kind of alcohol can be achieved with Peppers or Cinnamon.

Livestock

Animal	Head/Acre	Acres Worked^	Meat(lb)/Head
Cow	2	10	375
Goat/Sheep	7	4	50
Pig	10	6	125
Chicken	25	2	1

^1 Acre of pasture counts as multiple acres to be worked.

Area

An **Acre** is a squared unit of measurement referring to 43,560ft/squared. The acre can take any shape, but for the purposes of Divestment & Dignitaries will be simplified and rounded down to squares of 200 by 200ft.

One **acre** is 1/8th of a **mile**. Someone owning a square mile of land thus owns 640 **acres**.

Generally speaking an acre of land can produce 600 pounds of wheat.

Working the Land

A peasant can work 40 acres of land a day, barring complication. Farmers live all but invariably within family units, however, which are as large as can be achieved in the face of infant mortality and sustained against harsh winters, crop shortfalls, and disease–all this to say nothing of *Kobolds*.

An average peasant household has 1d4+1 adult, working family members. When one does not seek to treat this in finer detail, it may simply be assumed that one household may work 160 acres a day.

Cost of Land

Size Designation	Cost	Acres	Peasants to Work
Meager	100gp	160	4 (1 Family)
Small	500gp	320	8 (2 Families)
Moderate	1,000gp	640	16 (4 Families)
Large	5,000gp	2560	64 (16 Families)
Huge	7,750gp	6400	160 (40 Families)

Crops and Yield

Wheat becomes flour which becomes bread. One pound of each transfers directly to one pound of the latter.

Structures of Farmland

Most structures on a farm are made by locals with locally available materials. Housing and storage facilities can be produced as-needed, supposing there is land available.

Nutrition Units

Food	Nutrition Unit/Pound	Morale Mod
Bread	1	+0
Meat	2	+0
Grapes	0.3	+3
Rice (dry)	2	+0
Tofu	2	-1
Garlic	1	+/-1
Cinnamon	~	+4
Pepper	~	+2
Sugar	~	+1
Potato	1	+0
Eggs (Cooked)	0.5	+1

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Structures

Name of Structure	Job	Cost to Build	Upkeep/day^
Mill	Milling	7,500gp	12gp
Dryery	Drying	10gp/Acresworth	1gp
Still	Distilling	50gp	4gp
Brewery	Brewing	500gp	10gp
Butchery	Butchering	200gp	2gp
Tea Refinery	Refining/dry	20gp/Acresworth	5gp
Cane Refinery	Refining	75gp	5gp
Coopery	Barrels	400gp	6gp
Warehouse	Storage	100gp/10x10ft	3gp

Cottage Industry

Those resources without an explicit structure that performs the jobs needed to process a good (ginning for cotton) are presumed to be done in the home.

^Upkeep is only payed whilst the building is use; otherwise its upkeep cost is negligible, although buildings will go fallow and begin to collapse after multiple years of misuse. Generally speaking, if something hasn't been touched in half a decade it's going to require 25% its cost to build to get it operational again, and if it hasn't been touched up in a decade you'll need to spend 75%-120% of the Cost to Build and may be better off tearing it down and building a new one.

Miller's Due

Mills are expensive and have a great capacity to process grains. It is unlikely for every or even most villages to possessa mill. Generally one in a few days' travel is enough for an entire county. While the upkeep (only paid whilst the structure is in operation) for a mill is demanding, and farmers are frequently short of cash, it would be economically unwise to allow something as abstract as currency to stand between a farmer's need and a miller's gain. Hence, the miller's due–a 10th is generally considered reasonable, though an uppity miller not given to fear of angry mobs or vindictive land holders might demand up to an 8th. In systems where peasants pay their taxes in a cut of their harvest, this may be facilitated through the mill–in this case a farmer could expect to lose up to half their harvest's value, though such a situation could not long endure outside the most bountious of regions.

Credit where Credit is Due

Helpful information about the feudal manor system.
http://www.lordsandladies.org/medieval-manors.htm

Information on farmland.
http://rpg.stackexchange.com/questions/10123/pre-modern-farming-what-percent-of-the-population-is-in-agriculture

Cargo Unit (Pallets)

Pallets are the basic unit of volume, *not actual pallets (necessarily)*. They are 5-by-5 feet.

Good	Pounds per Pallet
Crops	200
Meat	400
Metals	500
Organic Materials	300
Weapons	300 (100 longswords/150 longbows)^
Armour	200 (20 sets heavy/medium, 40 light)
Liquid	Single Barrel (~650lb\100 litres)

^(300 Arrows/200 Bolts)

Crop Volatility

Crop	Volatility Score	Resilience
Wheat	0	2
Barley	1	1
Grapes	2	1
Rice	1	1
Soybeans	2	1
Garlic	1	1
Cinnamon	0	2
Peppers	1	1
Tea	2	1
Saffron	1	1
Cotton	1	1
Poppy	1	2
Sugar Cane	2	1
Potato	2	0

Trade Goods

Cost	Goods
1 cp	1 lb. of wheat (or barley), or 1 lb. of potato
2 cp	1 lb. of flour or 1 lb. of rice, or one chicken
3 cp	1 lb. of garlic, or 1 lb. of soymilk
4 cp	1 lb. of raw tea, or 1 lb. of tofu
5 cp	1 lb. of salt or 1 lb. of meat (chicken) or 1 lb. of sugar
1 sp	1 lb. of iron or 1 sq. yd. of canvas
3 sp	1 lb. of meat (Cow), 1 lb. of grapes
5 sp	1 lb. of copper or 1 sq. yd. of cotton cloth
1 gp	1 lb. of ginger or one goat
2 gp	1 lb. of cinnamon or pepper, or one sheep
3 gp	1 lb. of cloves or one pig
5 gp	1 lb. of silver or 1 sq. yd. of linen
10 gp	1 sq. yd. of silk, or 1 lb. of opium, or one cow
15 gp	1 lb. of saffron or one ox
50 gp	1 lb. of gold
500 gp	1 lb. of platinum

Livestock Harvestables

Livestock kept alive on worked pasture yield the following goods:

Livestock	Good
Cow	25 litres of Milk/day
Goat	12 litres of Milk/day
Sheep	5lb. Wool
Chicken	1lb. Eggs\week

Kobold Infestation

Reference the SRD for Kobold statistics

Every time a Kobold infestation is established, 1d12+1 Kobolds move into either an abandoned cave or an existing kobold lair near your farm. These thieving bastards will prove a constant menace, and once every 6 months the DM should roll on the below tables.

Raids

1d4	Result
4	Raid
3	Scouting
2	Thieving
1	Silence

Raid

Kobolds are cowards and if their population is not double that of the farm this is downgraded to scouting. The most severe possibility, 50% of the Kobolds assault your farm and proceed to burn and kill. Depending on the size of their cave they make take 10 to 100 pallets worth of goods, torching the remaining buildings and leaving them destroyed or dilapidated, the livestock not stolen slaughtered. Of course,

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Misfortune

Did Something Go Wrong?

d100	Misfortune
100-95	Record Harvest, x2 lb/Acre Harvest
94-40	No News is Good News
39-20	Minor Incident
19-6	Unfortunate Incident
5-1	Bad Incident

Minor Incident

d10	Incident
10	1 livestock escapes, can be recovered.
9	10lbs of random crop misplaced.
8-7	Adult Farmer Sickly, works only 20 Acres this year.
6	House damaged, day's labour lost repairing it.
5-4	Hostile animals kill 1 livestock, else eat 10lb of crop.
3-2	Hostile animals kill 1 livestock, else eat 10(x1d4)lbs of crop.
1	Village dispute must be resolved by Player. If unavailable, roll on the Vigilante Justice table.

Unfortunate Incident

d10	Incident
10	1d4 livestock escape(s), can be recovered.
9-8	50lbs of random crop lost.
7-6	Adult Farmer Sickly, works only 20 Acres this year.
5-4	Wolf pack moves into the region, kills 1d4 livestock/month until dealt with.
3-2	Kobolds have liared nearby.
1	Village dispute must be resolved by Player. If unavailable, roll on the Vigilante Justice table 1d4 times.

Bad Incident

d6	Incident
6	Fire! Random structure damaged, required half buildprice to repair.
5	Fire! Random structure wholly destroyed.
4	Kobolds lair nearby, else double in strength.
3	2d6 Direwolves moves into region, kill 1d4 Livestock/month. When no more livestock, begin killing peasants.
2	Bloodfued erupts, 1d4 peasant families wiped out.
1	Blight. 50% of all crops spoil, half of all livestock dies and the meat is unsalvagable.

Vigilante Justice

1d4	Incident
4	Amicable Resolution
3	Adult Farmer Wounded, works only 20 Acres this year
2	Adult Farmer Killed\run out of town.
1	Family killed\run out of town.