

This formula is formed on the basis that you can compare the cost of supporting an army to the cost of building one and that the market accurately reflects the demand of each resource in the server.

I formed an equation to compare the efficiency ratios of building an army to killing armies. This is the efficiency ratio of building for pres:

$$(\text{Pres gained from building})/(\text{cost to build the army})$$

This is the efficiency ratio of hitting for pres:

$$(\text{pres gained from killing})/(\text{cost to maintain army})$$

If killing is a more efficient method of gaining pres, then

$$\frac{(\text{hitting pres})}{(\text{upkeep})} \text{ would have to be } > \frac{(\text{building pres})}{(\text{building costs})}$$

The above can be put into an equation to find the point when hitting is better than building:

$$\frac{X}{24jh(a+4b+2c+10d-i)} = \frac{((440a+1940b+960c+3820d)/300)(1k/30)}{10(a(12e+10f+18g+4h)+b(44e+55f+75g+20h)+c(31e+25f+32g+8h)+d(180e+78f+99g+25h))}$$

In which

a=amount of inf in the army

b=amount of cav

c=amount of arch

d=amount of cats

e=price of wood

f=price of stone

g=price of iron

h=price of crop

i=total maximum crop production from your cities per hour

j=days to build your complete army

k=level

X=pres needed to hit to make hitting and maintaining the army more efficient than starving and building in j days

Therefore,

$$X = \frac{(24jh(a+4b+2c+10d-i) ((440a+1940b+960c+3820d)/300)(1-k/30))}{(10(a(12e+10f+18g+4h)+b(44e+55f+75g+20h))+c(31e+25f+32g+8h)+d(180e+78f+99g+25h))}$$

For example, as of April 9,2012, this would be the formula for server 124:

$$X = \frac{(2.64j(a+4b+2c+10d-i) ((440a+1940b+960c+3820d)/300)(1-k/30))}{11.4a+51.3b+23.9c+91.1d}$$

If I had 30,000 Calvary and 60,000 archers in 124, and it took me 10 days to build, then the formula would look like this:

$$X = \frac{(2.64(10)(0+4(30,000)+2(60,000)+10(0)-(61440)) ((440(0)+1940(30,000)+960(60,000)+3820(0))/300)(1-(16)/30))}{11.4(0)+51.3(30,000)+23.9(60,000)+91.1(0)}$$

$$X=285619 \text{ prestige}$$

This is a somewhat small amount to try to hit in 10 days with that kind of army, and hunts can bring in a lot of prestige too. But if I had a busy week or went of vacation, this formula would be useful in determining if my few minutes of haypi would be best spent scouting and hitting. If I couldn't get a 28000 prestige in one day, then it wouldn't be worthwhile to maintain the army. It would be better to kill off the army and to rebuild.

The formula doesn't have hunts included. Until the complete hunting formula has been discovered, I will not include hunts as a factor.