

## A detailed breakdown of how worker improvements modify terrain values:

### Farm = 1F

With Terrain (flatland)	With Tech: <b>Agriculture</b> (non-irrigated), only near fresh water	With Tech: <b>Biology +1F</b> (irrigated with Civil Service tech)	With Tech: <b>Biology</b> (non-irrigated) can build without fresh water or chaining
<b>Tundra</b> (by rivers only)	2F 1C	2F 1C	not available
<b>Plains</b>	2F 1P (1C river bonus)	3F 1P	2F 1P
<b>Grassland</b>	3F (1C river bonus)	4F	3F
<b>Floodplains</b>	4F 1C	5F 1C	not relevant

**Best Terrain:** Floodplains **5F 1C** (with Civil Service)

Best Possible Food with Resource: 7F 2C (Wheat +2F 1C on Floodplains) - see resource table

### Mine = 2P

With Terrain (hills)	With Tech: <b>Mining</b>	With Tech: <b>Railroads +1P</b> (must be built on tile)
<b>Snow, Desert, Tundra Grassland</b>	3P	4P
<b>Plains</b>	4P	5P

**Best Terrain:** Plains **5P** (with railroad) + **1C** with river

Best Possible Production with Resource: 7P 2C (Aluminum +2P 1C + Plains/river/railroad) - see resource table

### Workshop = -1F 1P

With Terrain (flatland)	With Tech: <b>Metal Casting</b>	With Tech: <b>Guilds +1P</b>	With Tech: <b>Chemistry +1P</b>	With Civic: <b>State Property +1F</b>			
			+ Guilds		+ Chem or Guilds	+ Chem + Guilds	
<b>Tundra</b> (by rivers only)	1P 1C	2P 1C	2P 1C	<b>3P 1C</b>	1F 1P 1C	1F 2P 1C	<b>1F 3P 1C</b>
<b>Grassland</b>	1F 1P	1F 2P	1F 2P	<b>1F 3P</b>	2F 1P	2F 2P	<b>2F 3P</b>
<b>Plains</b>	2P	3P	3P	<b>4P</b>	1F 1P	1F 2P	<b>1F 4P</b>
<b>Floodplains</b>	2F 1P 1C	2F 2P 1C	2F 2P 1C	<b>2F 3P 1C</b>	3F 1P 1C	3F 2P 1C	<b>3F 3P 1C</b>

**Best Terrain** (max production): Plains **1F 4P 1C** (+ river + State Property)

### Windmill = 1F 1C

With Terrain (hills)	With Tech: <b>Machinery</b>	With Tech: <b>Replaceable Parts +1P</b>	With Tech: <b>Electricity +1C</b>	
				+ Replace Parts
<b>Snow, Desert, Tundra</b>	1F 1P 1C	1F 2P 1C	1F 1P 2C	<b>1F 2P 2C</b>
<b>Grassland</b>	1F 2P 1C	1F 3P 1C	1F 2P 2C	<b>1F 3P 2C</b>
<b>Plains</b>	2F 1P 1C	2F 2P 1C	2F 1P 2C	<b>2F 2P 2C</b>

**Best Terrain** (max production): Plains **1F 3P 3C** (Replaceable Parts, Electricity + river)

**Best Terrain** (max food): Grassland **2F 2P 3C** (Replaceable Parts, Electricity + river)

### Watermill = 1P + 1C from river

With Terrain (flatland, on river)	With Tech: <b>Machinery</b>	With Tech: <b>Replaceable Parts +1P</b>	With Tech: <b>Electricity +2C</b>		With Civic: <b>State Property +1F</b>			
				+ Replace Parts		+ Replace Parts	+ Electricity	+ Rep Parts + Electricity
<b>Snow</b>	1P 1C	2P 1C	1P 3C	<b>2P 3C</b>	1F 1P 1C	1F 2P 1C	1F 1P 3C	<b>1F 2P 3C</b>
<b>Tundra</b>	1F 1P 1C	1F 2P 1C	1F 1P 3C	<b>1F 2P 3C</b>	2F 1P 1C	2F 2P 1C	2F 1P 3C	<b>2F 2P 3C</b>
<b>Grassland</b>	2F 1P 1C	2F 2P 1C	2F 1P 3C	<b>2F 2P 3C</b>	3F 1P 1C	3F 2P 1C	3F 1P 3C	<b>3F 2P 3C</b>
<b>Plains</b>	1F 2P 1C	1F 3P 1C	1F 2P 3C	<b>1F 3P 3C</b>	2F 2P 1C	2F 3P 1C	2F 2P 3C	<b>2F 3P 3C</b>
<b>Floodplains</b>	3F 1P 1C	3F 2P 1C	3F 1P 3C	<b>3F 2P 3C</b>	4F 1P 1C	4F 2P 1C	4F 1P 3C	<b>4F 2P 3C</b>

**Best Terrain (max production): Plains 2F 3P 3C (Replaceable Parts, Electricity, State Property)**

**Best Terrain (max food): Floodplain 4F 2P 3C (Replaceable Parts, Electricity, State Property)**

### Lumbermill = 1P

With Terrain (forest)	With Tech: <b>Replaceable Parts</b>	With Tech: <b>Railroads +1P (must be built on tile)</b>
<b>Snow</b>	2P	3P
<b>Tundra</b>	1F 2P	1F 3P
<b>Grassland</b>	2F 2P	2F 3P
<b>Plains</b>	3P	4P
<b>Snow/Hill</b>	3P	4P
<b>Tundra/Hill</b>	3P	4P
<b>Grassland/Hill</b>	1F 3P	1F 4P
<b>Plains/Hill</b>	4P	5P

**Best Terrain: Plains/Hill 5P (with railroad) + 1C with river**