**Food Resources**

1. The Race to Feed the World
2. Increased Food Production
3. Reasons

 a.

b.

c.

d.

e.

1. Sustainability depends on ….
2. Nutrition Problems
3. Undernutrition
	* 1. Means…
		2. Food security –
4. Overnutrition means…
5. Malnutrition
	1. Means
	2. Kwashiorkor –
6. The Green Revolution
7. Impact of technology
8. Mixed consequences:
	* 1. Positive:
			1.
		2. Negative
			1. Intensive application of water, fossil fuels, inorganic fertilizers, and synthetic pesticides worsened –
			2. Impact of monocultures –
9. Biofuel
10. Fuels derived from organic materials, Ex. -
11. Impact –
12. Pests and Pollinators
13. Pesticides
14. Examples –
15. Problems with pesticides:
	* 1. Human health consequences
		2. Pesticide treadmill –
		3. Non-target organisms
16. Alternatives to pesticides:
	* 1. Biological control –
			1. Bt –
			2. Cactus moth –
		2. IPM (Integrated Pest Management) –
17. Pollination
18. Relies on insects
19. Populations of pollinators are declining
20. Genetically Modified Food
21. Process
22. Genetic engineering –
23. Genetically Modified Organisms (GMOs) –
24. Recombinant DNA –
25. Goal:
26. Results

1. Benefits

 a. Insect resistant crops

 b. Drought tolerant crops

 c. Crops that increase yields

1. Drawbacks
	* 1. Increased use of chemical herbicides
		2. Potentially dangerous for human consumption
		3. Loss of biodiversity
2. The future of GM food– hinges on social, legal, political, AND scientific factors
	* + - 1.
				2.
3. Raising Animals for Food
4. Food and Energy
5. Eating meat is less energy efficient
6. Animals vary in efficiency
7. Feedlot agriculture
8. Feedlots –
9. Impacts:
	* 1. Increased economic efficiency
		2. Increased water pollution
		3. Antibiotics and Hormones
		4. Increased emissions of greenhouse gases
10. Aquaculture
11. Aquaculture
12. Benefits:
	* 1. Ensures a reliable protein source
		2. Reduces fishing pressure
		3. Uses less fossil fuels
13. Drawbacks:
14. High population density
15. Produces high amounts of waste
16. Accidental release
17. Sustainable Agriculture
18. Soil conservation practices –
19. Low-input agriculture -
20. Organic agriculture
21. Characteristics –

Organic Food Production Act (1990) –

1. Benefits
	1. For farmers –
	2. For consumers –
2. Challenges
	1. For farmers –
	2. For consumers –
3. Local food –