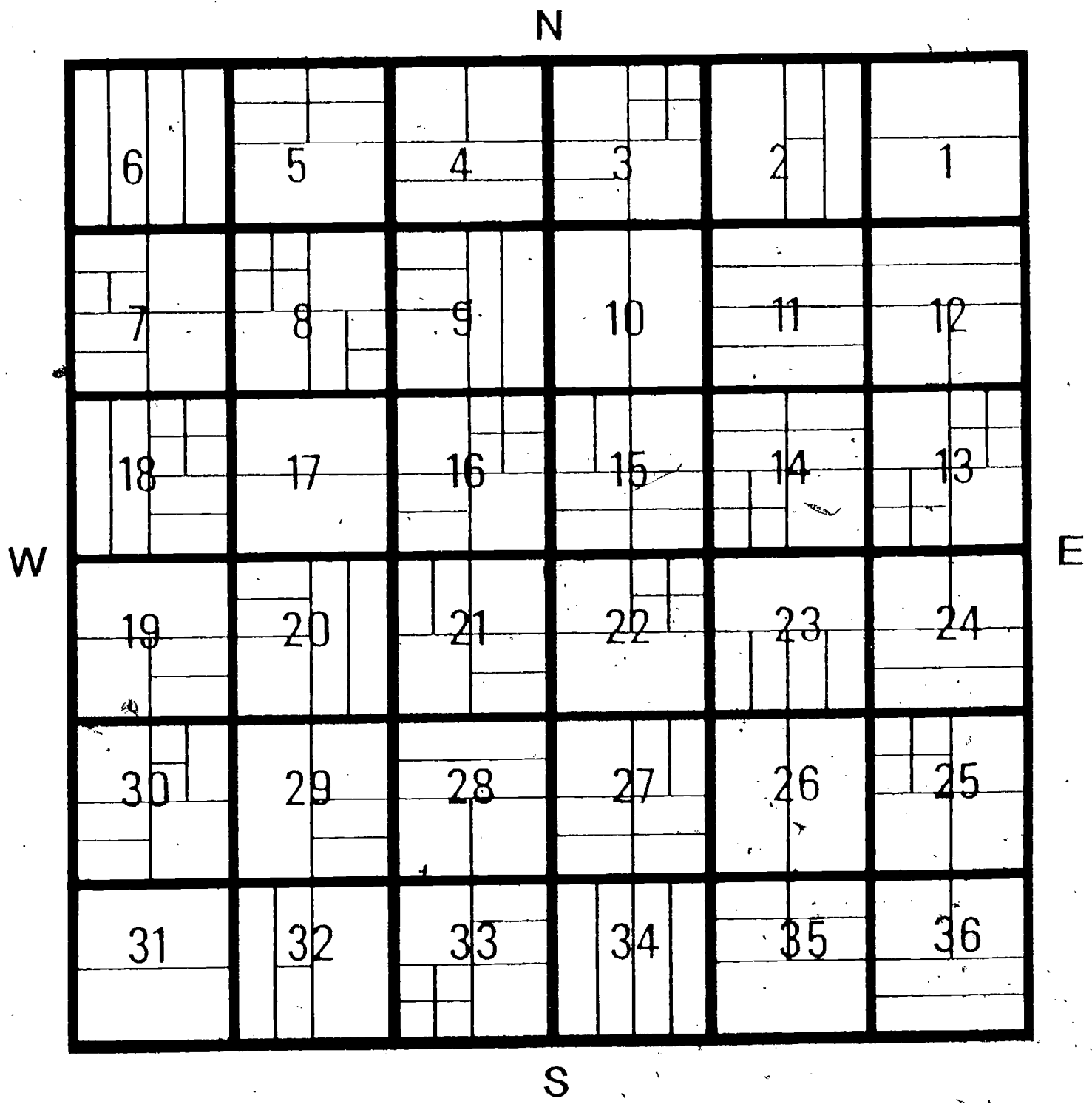


MAP #1



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MAP #2

N

27 26 25 24				22 19	18 15	12 10 7	6 4 3		1	
				23 20	16		13 11 8	2		
				21		14	9			
28		33		35 38	44		51		55	
29 30			36 39	40		45 47 48		52		
31		34		37 41	46		49 50		53	
32				42 43				54		57 58
		99 95	93		90 88 85	82 81	78	72 69	64 62 59	
101		100 96			89 86				73 70	63 60
102			94		91	87		83 79	76 74	65 66
		97				84 80		77 75	71	67 68
		98								61
103				107 110	112 113	115	118 120 122	124		129 132
		108		111				121 123		
104	105	109				114	116	119		125 126 127 128
		106				117				130
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161	159 157	156		153		149		146 145 142	138 137 133	
		160				150				139 136
162		158		154		152 151	147 143	141 140	135 134	
163				155						
164		167	169		170	175	178 179	182 185	187 190	
						176			183 186	
165		166 168			171 172 173 174	177	180 181	184		188
										189

S

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JOB SHEET #2

ANSWER KEY TO TOWNSHIP MAP

1. N. $\frac{1}{2}$ of Section 1	320 ac	26. E. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 6	160 ac
2. S. $\frac{1}{2}$ of Section 1	320 ac	27. W. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 6	160 ac
3. E. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 2	160 ac	28. N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 7	80 ac
4. W. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 2	80 ac	29. S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 7	40 ac
5. W. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 2	80 ac	30. S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 7	40 ac
6. W. $\frac{1}{2}$ of Section 2	320 ac	31. N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 7	80 ac
7. N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 3	40 ac	32. S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 7	80 ac
8. S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 3	40 ac	33. N.E. $\frac{1}{4}$ of Section 7	160 ac
9. S.E. $\frac{1}{4}$ of Section 3	160 ac	34. S.E. $\frac{1}{4}$ of Section 7	160 ac
10. N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 3	40 ac	35. N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 8	40 ac
11. S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 3	40 ac	36. S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 8	40 ac
12. N.W. $\frac{1}{4}$ of Section 3	160 ac	37. S.W. $\frac{1}{4}$ of Section 8	160 ac
13. N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 3	80 ac	38. N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 8	40 ac
14. S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 3	80 ac	39. S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 8	40 ac
15. N.W. $\frac{1}{4}$ of Section 4	160 ac	40. N.E. $\frac{1}{4}$ of Section 8	160 ac
16. N. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 4	160 ac	41. W. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 8	80 ac
17. S. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 4	160 ac	42. N.E. $\frac{1}{4}$ of S.E. $\frac{1}{4}$ of Section 8	40 ac
18. N.W. $\frac{1}{4}$ of Section 4	160 ac	43. S.W. $\frac{1}{4}$ of S.E. $\frac{1}{4}$ of Section 8	40 ac
19. N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 5	80 ac	44. N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 9	80 ac
20. S. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 5	80 ac	45. S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 9	80 ac
21. S. $\frac{1}{2}$ of Section 5	320 ac	46. S.W. $\frac{1}{4}$ of Section 9	160 ac
22. N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 5	80 ac	47. W. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 9	160 ac
23. S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 5	80 ac	48. E. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 9	160 ac
24. E. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 6	160 ac	49. W. $\frac{1}{2}$ of Section 10	320 ac
25. W. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 6	160 ac	50. E. $\frac{1}{2}$ of Section 10	320 ac

51.	N. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 11	160 ac	78.	N.E. $\frac{1}{4}$ of Section 15	160 ac
52.	S. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 11	160 ac	79.	N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 15	80 ac
53.	N. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 11	160 ac	80.	S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 15	80 ac
54.	S. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 11	160 ac	81.	E. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 15	80 ac
55.	N. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 12	160 ac	82.	W. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 15	80 ac
56.	S. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 12	160 ac	83.	N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 15	80 ac
57.	S.W. $\frac{1}{2}$ of Section 12	160 ac	84.	S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 15	80 ac
58.	S.E. $\frac{1}{2}$ of Section 12	160 ac	85.	N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 16	40 ac
59.	N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 13	40 ac	86.	S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 16	40 ac
60.	S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 13	40 ac	87.	S.E. $\frac{1}{4}$ of Section 16	80 ac
61.	S.E. $\frac{1}{4}$ of Section 13	160 ac	88.	N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 16	40 ac
62.	N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 13	40 ac	89.	S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 16	40 ac
63.	S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 13	40 ac	90.	N.W. $\frac{1}{4}$ of Section 16	160 ac
64.	N.W. $\frac{1}{4}$ of Section 13	160 ac	91.	N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 16	80 ac
65.	N.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 13	40 ac	92.	S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 16	80 ac
66.	N.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 13	40 ac	93.	N. $\frac{1}{2}$ of Section 17	320 ac
67.	S.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 13	40 ac	94.	S. $\frac{1}{2}$ of Section 17	320 ac
68.	S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 13	40 ac	95.	N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 18	40 ac
69.	N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 14	80 ac	96.	S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 18	40 ac
70.	S. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 14	80 ac	97.	N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 18	80 ac
71.	S.E. $\frac{1}{4}$ of Section 14	160 ac	98.	S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 18	80 ac
72.	N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 14	80 ac	99.	N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 18	40 ac
73.	S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 14	80 ac	100.	S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 18	40 ac
74.	N.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 14	40 ac	101.	E. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 18	160 ac
75.	S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 14	40 ac	102.	W. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 18	160 ac
76.	N.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 14	40 ac	103.	N. $\frac{1}{2}$ of Section 19	320 ac
77.	S.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 14	40 ac	104.	S.W. $\frac{1}{4}$ of Section 19	160 ac

105. N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 19	80 ac	132. N.E. $\frac{1}{4}$ of Section 24	160 ac
106. S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 19	80 ac	133. N.E. $\frac{1}{4}$ of Section 25	160 ac
107. N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 20	80 ac	134. S.E. $\frac{1}{4}$ of Section 25	160 ac
108. S. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 20	80 ac	135. S.W. $\frac{1}{4}$ of Section 25	160 ac
109. S.W. $\frac{1}{4}$ of Section 20	160 ac	136. S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 25	40 ac
110. W. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 20	160 ac	137. N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 25	40 ac
111. E. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 20	160 ac	138. N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 25	40 ac
112. W. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 21	80 ac	139. S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Section 25	40 ac
113. E. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 21	80 ac	140. E. $\frac{1}{2}$ of Section 26	320 ac
114. S.W. $\frac{1}{4}$ of Section 21	160 ac	141. W. $\frac{1}{2}$ of Section 26	320 ac
115. N.E. $\frac{1}{4}$ of Section 21	80 ac	142. E. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 27	80 ac
116. N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 21	80 ac	143. N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 27	80 ac
117. S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 21	80 ac	144. S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 27	80 ac
118. N.W. $\frac{1}{4}$ of Section 22	160 ac	145. W. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 27	80 ac
119. S. $\frac{1}{2}$ of Section 22	320 ac	146. N.W. $\frac{1}{4}$ of Section 27	160 ac
120. N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 22	40 ac	147. N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 27	80 ac
121. S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 22	40 ac	148. S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 27	80 ac
122. N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 22	40 ac	149. N. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 28	160 ac
123. S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 22	40 ac	150. S. $\frac{1}{2}$ of N. $\frac{1}{2}$ of Section 28	160 ac
124. N. $\frac{1}{2}$ of Section 23	320 ac	151. S.E. $\frac{1}{4}$ of Section 28	160 ac
125. W. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 23	80 ac	152. S.W. $\frac{1}{4}$ of Section 28	160 ac
126. E. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 23	80 ac	153. N.E. $\frac{1}{4}$ of Section 29	160 ac
127. W. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 23	80 ac	154. N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 29	80 ac
128. E. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 23	160 ac	155. S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 29	80 ac
129. N.W. $\frac{1}{4}$ of Section 24	160 ac	156. W. $\frac{1}{2}$ of Section 29	320 ac
130. N. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 24	160 ac	157. E. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 30	80 ac
131. S. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 24	160 ac	158. S.E. $\frac{1}{4}$ of Section 30	160 ac

159. N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 30 40 ac
 160. S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Section 30 40 ac
 161. N.W. $\frac{1}{4}$ of Section 30 160 ac
 162. N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 30 80 ac
 163. S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 30 80 ac
 164. N. $\frac{1}{2}$ of Section 31 320 ac
 165. S. $\frac{1}{2}$ of Section 31 320 ac
 166. W. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 32 160 ac
 167. E. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 32 80 ac
 168. E. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Section 32 80 ac
 169. E. $\frac{1}{2}$ of Section 32 320 ac
 170. N.W. $\frac{1}{4}$ of Section 33 160 ac
 171. N.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 33 40 ac
 172. N.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 33 40 ac
 173. S.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 33 40 ac
 174. S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Section 33 40 ac
 175. N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 33 80 ac
 176. S. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 33 80 ac
 177. S.E. $\frac{1}{4}$ of Section 33 160 ac
 178. W. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 34 160 ac
 179. E. $\frac{1}{2}$ of W. $\frac{1}{2}$ of Section 34 160 ac
 180. W. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 34 160 ac
 181. E. $\frac{1}{2}$ of E. $\frac{1}{2}$ of Section 34 160 ac
 182. N. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 35 80 ac
 183. S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ of Section 35 80 ac
 184. S. $\frac{1}{2}$ of Section 35 320 ac
 185. N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 35 80 ac

186. S. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Section 35 80 ac
 187. N.W. $\frac{1}{4}$ of Section 36 160 ac
 188. N. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 36 160 ac
 189. S. $\frac{1}{2}$ of S. $\frac{1}{2}$ of Section 36 160 ac
 190. N.E. $\frac{1}{4}$ of Section 36 160 ac

TEACHER'S KEY

WORKSHEET #1

LEGAL LAND SURVEYS

(For use with VAS Unit 2042)

1. Why is it necessary to use legal land descriptions?
To provide a method by which a person can obtain a clear title to any tract of land
2. What is the metes and bounds system of describing land?
A land description method that starts with a "point of beginning" and outlines the tract using north and south directionals, measurements and reference points such as rocks, rivers, trees, stakes and fences.
3. Why was the rectangular survey system established?
To provide corner markers on the ground that would be permanent and to provide short, complete, direct and easily understood legal description
4. Who directed the organization of the original rectangular land survey?
Thomas Jefferson in 1785
5. Define the following terms:
 - a. Principal meridian - Lines running north and south established by the original rectangular surveyors from which measurements are made going east or west. These are not connected in any way to the global geographic meridians.
 - b. Base line - Lines running east and west established by the original rectangular surveyors from which measurements are made going north and south.
 - c. Survey township - A 36 sq. mile area of land measuring 6 miles x 6 miles. A township is located by its relationship from a meridian and a baseline in terms of tiers and ranges. A survey township is not necessarily the same as a governmental township.
 - d. Section - A 1 mile x 1 mile area of land located in township by a specified numbering system. Each section contains 640 acres.
 - e. Standard parallels - Correction lines made every 24 miles north and south from a base line.
 - f. Guide meridians - Correction lines made every 24 miles east and west from a principal meridian.

TEACHER'S KEY

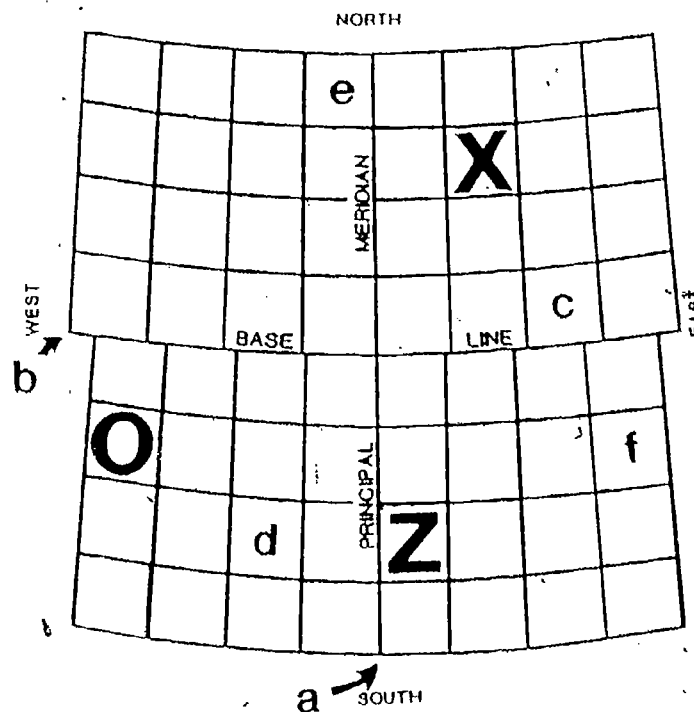
WORKSHEET #2

TOWNSHIPS

(For use with VAS Unit 2042)

1. Using the letters corresponding to each description, label the diagram.

- a) Principal meridian
- b) Base line
- c) Township 1 north Range 3 east
- d) Township 3 south Range 2 west
- e) Township 4 north Range 1 west
- f) Township 2 south Range 4 east



2. Write the description for the tract of land represented by;

- X Township 3 north Range 2 east
- O Township 2 south Range 4 west
- Z Township 3 south Range 1 east

3. How many square miles are there in a township? 36

4. Each township contains 36 sections.

5. Number the sections shown in the enlarged map shown below of Township 3 north Range 2 east.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

6. What number is the section that is shaded? 27

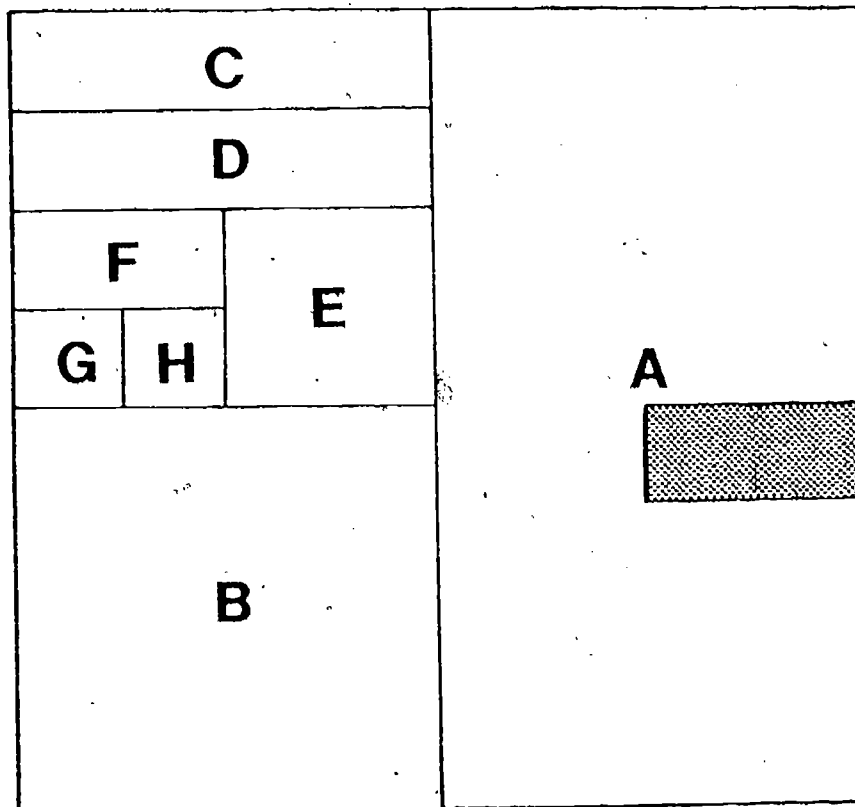
TEACHER'S KEY

WORKSHEET #3

SECTIONS

(For use with VAS Unit 2042)

- A section measures 1 miles x 1 miles and contains 640 acres.
- Write the number of acres and legal land description for each tract of land in the section represented by the following letters:
 - $E\frac{1}{2}$ 320 acres
 - $SW\frac{1}{4}$ 160 acres
 - $N\frac{1}{2} N\frac{1}{2} NW\frac{1}{4}$ 40 acres
 - $S\frac{1}{2} N\frac{1}{2} NW\frac{1}{4}$ 40 acres
 - $SE\frac{1}{4} NW\frac{1}{4}$ 40 acres
 - $N\frac{1}{2} SW\frac{1}{4} NW\frac{1}{4}$ 20 acres
 - $SW\frac{1}{4} SW\frac{1}{4} NW\frac{1}{4}$ 10 acres
 - $SE\frac{1}{4} SW\frac{1}{4} NW\frac{1}{4}$ 10 acres



- Locate and color in the tract of land in the section map described as $N\frac{1}{2} NE\frac{1}{4} SE\frac{1}{4}$
- How many acres does question #3 describe? 20 acres

TEACHER'S KEY
WORKSHEET #4
PROPERTY TRANSFER

(For use with VAS Unit 2018d, part 4)

1. List five sources of the laws affecting Illinois farmers.
 - a. Federal & State Constitutions
 - b. Acts of Congress
 - c. Statutes of Illinois
 - d. Common Law
 - e. Administrative regulations of federal and state agencies
2. Where might an agriculturalist go to get copies of or information on Illinois laws?
 - a. Secretary of State
 - b. Illinois revised statutes
 - c. Federal or state agencies or their local offices
 - d. Extension Advisor or College of Agriculture, State University
 - e. Lawyer
3. Define common law principles.

Those laws that result from previous court decisions.
4. Explain the purpose of a warranty deed.

to guarantee a perfect title
5. What are the two types of warranties (promises)?
 - a. expressed
 - b. implied
6. When property ownership is transferred what warranties are implied?
 - a. The estate of the seller is free of legal claims and the seller has the right to transfer the property.
 - b. The property is free of any claims or liens.
 - c. The owner may have peaceable possession and the seller will defend this right.
7. Quitclaim deeds are used to clear titles to property.
8. Explain briefly what is meant by "clearing a title".

Anyone having interest in the property relinquishes that interest.
9. What is an abstract?

The complete list of important information of the transfer and encumbrances affecting the property. A history of any legal actions pertaining to the property in chronological order.

10. Who prepares abstracts?
the county recorder or a private company

11. What is the advantage of an abstract?
It shows any weakness in the title and gives the buyer a chance to have the title cleared before the purchase.

12. Define title insurance.
An insurance policy that provides the purchaser of real estate with security against any imperfections in the title that may appear later.

13. Torrens system is a system of registering the actual title of land instead of the evidence of such title.

14. Which do you feel is the better system of handling land titles, the present recording system or the Torrens system? Why? (Explain your position.)

TEACHER'S KEY

WORKSHEET #5

THE RIGHTS AND RESPONSIBILITIES OF THE PROPERTY OWNER

(For use with VAS Unit 2018d, Part 1)

1. What is the basis for determining the amount of tax paid on property?
 - a. the assessed valuation of the property
 - b. the rate (percent.) of the tax levy

2. How are property taxes established in our county?

3. Who is our county assessor?

4. When was your property last assessed?

5. When and to whom do you pay property tax?

6. How is the landowner protected against unfair or excessive valuation of land?

Assessments are reviewed by the supervisor of assessments and then by the County Board of Review. Taxpayers may appeal the decision of the Board of Review or appeal to the courts for relief. Under Illinois Revised Statutes a landowner may also have the farmland valued twice - once at 33 1/3% of the fair cash value if sold for farming or agricultural purposes and once at 33 1/3% of the fair cash value of the property if sold for non-agricultural purposes. The owner is then taxed for the lower of the two valuations as long as the property is used for agricultural purposes.

7. Briefly explain what factors are considered in determining the per acre value of land for tax purposes.

A formula is used to determine the value of the highest grade land in the state which takes into account the value per acre of agriculture products sold, value per acre of principal crops and the per acre sale price of land. All other farmland valuation is adjusted according to its productivity and actual use.

8. How can disputes over property lines be legally settled?

The two property owners enter a written agreement to employ and abide by the survey of a specified surveyor.

9. Using the chart below list the rights and responsibilities of the landowner for each area.

Area	Rights	Responsibilities
Land Support	<ul style="list-style-type: none"> - to receive subjacent support for land where excavation endangers the land 	<ul style="list-style-type: none"> - to provide lateral support to adjoining property when excavating near someone's property line
Trespassing	<ul style="list-style-type: none"> - to forbid entry by other persons to your property 	<ul style="list-style-type: none"> - must post notice of forbidden entry conspicuously at the main entry to land or notify the person orally or in writing
Hunting & Fishing	<ul style="list-style-type: none"> - the <u>occupants</u> of the land (only those actually living on the land) have the right to hunt and fish on the property without a license (however it is best to check with the local game warden) - to <u>destroy</u> wild birds or animals other than game birds, when such wild animal or wild bird is <u>destroying property by obtaining written permission</u> from the Dept. of Conservation 	<ul style="list-style-type: none"> - to hunt and fish <u>only</u> game which is legally in season and within legal limits - to obtain written permission before killing wild animals or birds from the Dept. of Conservation
Trees	<ul style="list-style-type: none"> - to half the tree growing on a property line - to trim branches overhanging your property line from a neighbor's tree - to <u>all</u> fruit produced by a tree growing on your property but overhanging onto another's property 	<ul style="list-style-type: none"> - to prevent trees from obstructing highways or drainage ways - to protect trees used as boundary markers

TEACHER'S KEY
WORKSHEET #6
WILLS AND ESTATES

(For use with VAS Unit 2018d, Part 1)

1. Why is it important to have a will?
A will enables decedents to distribute their property as they see fit (within limitation) and to appoint a guardian for dependent children and an executor to the will.
2. If there is not a will, property is distributed according to the Illinois interstate succession laws.
3. Explain the effect of inheritance laws and wills on the following items:
 - a. Minimum spouse inheritance
The will must provide a minimum of 1/3 of the estate to the surviving spouse. If the minimum 1/3 is not provided by the will the spouse can renounce the will and receive half of the estate.
 - b. Joint-tenants with the Right-of-Survivorship
The property passes automatically to the surviving joint tenant, and does not pass through the will.
 - c. Survivor's administration allowance
This allowance enables the surviving spouse and dependent children to have financial support from the estate during the administration of the will.
 - d. Life insurance
If life insurance is payable to someone other than the estate the insurance passes directly to the person named and is not part of the estate.
 - e. Briefly explain the difference between "guardian of the person" and a "guardian of the estate".
The guardian of a person is responsible for the custody and education of the minor while the guardian of the estate is responsible for the financial management of the minor's estate.
5. Define the following terms:
 - a. Executor of a will
The person chosen by the maker of the will to carry out the directions of the will during the period of administration with legal assistance.
 - b. Administrator of a will
The person chosen by the Circuit Court to handle the estate during the period of administration with legal assistance.
6. What are the five formal requirements of an Illinois will?
 - a. the person must be of sound mind
 - b. the person must be 18 years of age or older
 - c. signed by the maker

- d. in writing
e. witnessed by at least 2 persons
8. Explain how to revoke a will.
A will can be terminated by physically destroying it, writing a new will or writing a statement revoking the will.
9. When should a will be reviewed or revised?
A will should be reviewed every three years and when important changes take place in the person's life. Revisions should be made when necessary.
10. Where should a will be kept?
One copy should be kept at home for reviewing and the signed copy kept in a safety deposit box.
11. Define the following terms.
a. Estate
The land or other property of a deceased owner.
b. Life tenants
A person given use of property by the owner for the lifetime of the tenant. They have all the rights of an owner except they cannot mortgage or sell the land. Upon the death of the tenant the land is passed on to the remainderman or reversioners.
12. What are the three types of taxes which affect estate planning?
a. Illinois inheritance tax
b. federal estate tax
c. federal gift tax
13. What factors affect the rate of inheritance tax?
a. the relationship of the beneficiary to the decedent
b. the size of the inheritance
14. Why is estate planning important to a property owner?
Estate planning can reduce the burden of taxation for the heirs. When the estate lacks liquidity it is difficult for the beneficiaries to obtain adequate cash to pay the estate taxes and other costs occurring at the time of death including the expense of any last medical costs, funeral expenses, administrative costs and attorney's fees.
- Estate planning can also provide the most personally appealing solutions for distributing limited assets among the heirs. It also helps to provide security for the parent's life.
15. When should estate planning be done?
Estate planning should start when a person begins to acquire significant assets and reviewed periodically.

TEACHER'S KEY

WORKSHEET #7

LANDLORD AND TENANT

(For use with VAS Unit 2018d, Part 2)

1. What are the five legal requirements of a written lease?
 - a. It must be signed by both parties.
 - b. It must specify a definite time period for the property to be leased.
 - c. It must contain a description of the property.
 - d. It must name a specific lessor and lessee.
 - e. It must provide for payment of rent.

2. A year-to-year tenant is a tenant that does not have a written lease. Because the agreement is oral it is difficult for this type of tenant to prove her/his rights.

3. When terminating a lease what is the period of notice that the tenant is entitled to in a:
 - a. written lease
the period specified in the lease
 - b. year-to-year agreement
4 months

4. The best protection for a landlord and tenants is a good written lease covering the essential points in the farm operation and a long enough period of notice.

5. Material participation in the farming operation can affect the landlords;
 - a. self-employment tax,
 - b. social security benefits,
 - c. federal estate tax, and
 - d. Illinois inheritance tax

6. List the three conditions that the tenant must meet to remove improvements made by the tenant from the land.
 - a. He/she must not owe back rent to the landlord.
 - b. He/she must have added the improvement to the property.
 - c. The tenant must remove them before the term expires.

7. When is a structure considered removable?

A fixture is removable when the parties intended it to be and when it can be removed with undue injury to the land or other building.

8. What rights does a landlord have when a tenant abandons the property?

He/she may seize mature and harvested crops to pay for damages, rent and expenses provided that at any time prior to the sale of the items seized, the tenant may redeem the items by paying the landlord for the rent, expenses and damages.

TEACHER'S KEY

WORKSHEET #8

FARM LABOR

(For use with VAS Unit 2018d, Part 3)

1. True or False A wage agreement which will last for less than a year can be oral and still be legally binding.
2. True or False A person hired at will is employed for a definite period of time.
3. True or False A person hired at will may resign or be discharged with no notice.
4. List the two means by which a farm employer's liability can be determined.
 - a. common law principles
 - b. workmen's compensation
5. When are employers covered by the Workman's Compensation Act? When they employ 500 or more man-days of labor during each quarter of the preceding calendar year or volunteer to do so.
6. Compare common law and workman's compensation by completing the chart below.

Characteristic	Common Law	Workman's Compensation
Speed of Payment	Often slow due to court proceedings.	Prompt. No need for court action or proof of liability.
Liability	Must be determined in court - employee may be guilty of contributory negligence.	Always covered by employer regardless of fault.
Coverage	Varies greatly. Employee may receive nothing or can be fully covered including compensation for mental anguish or pain.	Uses a standard schedule depending on injury.
Cost	Is occurred by the party found liable.	Employers must pay to have workman's compensation insurance.

7. Are agriculture workers normally covered by the Federal Minimum Wage Law? Why or why not?
No. Most farm employers do not employ enough people for enough time to qualify.
8. Do most farm laborers qualify for unemployment insurance? Why or why not?
No. Same as #7.
9. Under what conditions is agriculture employment subject to the unemployment compensation act?
- If the employer pays 20,000 in cash wages during any quarter of the previous year
 - If the employer employs 10 or more individual employees at least one day during each of 20 different weeks

TEACHER'S KEY

WORKSHEET #9

DRAINAGE AND WATER RIGHTS

(For use with VAS Unit 2018d, Part 4)

1. What provisions must be made if a landowner alters the flow of drainage across his/her land?
 - a. The drainage must drain only into the natural discharge point.
 - b. The owner cannot cause the water to back up onto high land.
2. What are the local drainage districts?
3. When were the local districts established?
4. What benefits have been brought about by our drainage district?
5. According to the common laws on damming or impounding water what are the responsibilities of the landowner concerning the construction of a dam?
 - a. The landowner is liable for any damage that might occur due to the alteration
 - b. Cannot interfere with the use of water downstream
 - c. Cannot divert the course of the stream
 - d. Cannot reduce the amount of water unreasonably
 - e. Cannot cause water to back up on another's property
6. What are the responsibilities of the landowner for ground water?
 - a. The owner can use as much water from his/her own wells as desired regardless of how it affects other's supply.
 - b. The user may not pollute or maliciously deplete the supply.
 - c. If drilling a well that will penetrate the subsurface below the glacial drift, the owner must obtain a permit from the State Department of Mines and Minerals, and a log of all drilled wells must be filed with the State Geological Survey Division.

TEACHER'S KEY

WORKSHEET #10

FENCES

(For use with VAS Unit 2018d, Part 5)

1. Define a legal fence.
Enclosure 4½' high, in good repair and capable of keeping livestock off of adjoining land
2. What materials could be used to build a fence?
Rails, boards, stone, hedge, timber, barbwire, woven wire or whatever the fence viewers of the town or precinct consider the equivalent.
3. Who determines what constitutes a legal fence in our county?
4. What constitutes a legal fence in our county?
5. When can an owner of an electric fence be held liable for injury caused by the fence?
When the owner is found negligent in seeing that the fence was not properly constructed or installed
6. According to Illinois law who is responsible for a division fence?
Each owner for a just portion which is by custom usually the right half as the owner views the fence from their property
7. Who decides which portion of the fence each neighbor is responsible for?
The owners do if they can come to a mutual agreement. If an agreement cannot be made then the county fence viewer decides.
8. Under what conditions is a landowner not responsible for his/her share of a division fence?
When the landowner does not cultivate the land or use the land for pasture purposes. To remove an existing fence the owner must give one year's notice to the adjoining owner and allow the adjoining owner to buy his/her interest in the fence.

TEACHER'S KEY

WORKSHEET #11

LIVESTOCK

(For use with VAS Unit 2018d, Part 6)

1. Your neighbor's cow breaks out of the fence onto your newly sodden lawn. What factors must be considered in determining who is liable for damages?
 - a. the ownership of the animal
 - b. the condition of the fence at the location of the escape
 - c. the person responsible for the area of the fence
 - d. the past behavior of the animal
2. What should your neighbor do to minimize the damage?
Retrieve the animal immediately.
3. You find an estray on your land. What could it be?
An estray is a domesticated animal of unknown ownership. Examples might be cattle, horses, pigs, mules, goats, ass or sheep.
4. You would like to keep the estray goat, what can you do to legally claim the animal?
 - a. Post a notice in three public places within five days of finding the animal.
 - b. Apply for appraisal of the animal within 10-15 days.
 - c. After 3 months notify the judge. If the animal is worth more than \$25 the county clerk must also be notified.
5. How would this procedure change if the estray animal were a cow?
The person wishing to take up the animal would have to wait one year before notifying the judge.
6. What would happen if the goat's owner came to retrieve the animal after 2 months had passed since you found the estray?
The owner would need to pay the finder the costs of caring for the animal that were occurred by the finder.
7. The general rules governing animals loose on a road or highway follows the same basic principles as those covering trespassing animals. In addition to these general rules what does the law demand that a farmer do if he/she drive animals along or across the roadway.
He/she must use whatever care is necessary to keep the animals under control and provide warning to motorists.

8. Are you required to license a dog where you live? If "yes" how can this be done?

9. Under what circumstances may you kill a dog?

A dog can be killed if the unaccompanied dog is discovered in the act of wounding or killing a domesticated animal. A dog can be poisoned with the consent of the owner and with written permit from the Illinois Department of Agriculture.

10. When is the injured person held responsible for a dog's attack?

- a. if the person is trespassing
- b. if the person provokes the animal
- c. if the person ignores warning signs

11. The owner is responsible for damages done by a vicious animal only if the animal is known to be vicious prior to the injury.

TEACHER'S KEY

WORKSHEET #12

ANIMAL DISEASE LAWS

Complete the chart using the information found in VAS Unit 2018d Part 7

Disease	Control Measures	Treatment and Disposal
Rabies	<ul style="list-style-type: none"> - animals may be required to be inoculated and tagged - may need to confine animals for a set time period in an area of rabies occurrence - animal showing symptoms should be reported to the rabies inspector - any animal that has bitten a person must be confined for 10 days 	<ul style="list-style-type: none"> - notify rabies inspector - confine animal
Hog Cholera	<ul style="list-style-type: none"> - illegal to vaccinate for hog cholera - state permit and health papers are needed to transport hogs into Illinois 	<ul style="list-style-type: none"> - must burn the carcass or bury at least 4 ft. deep - the state may order diseased animals destroyed

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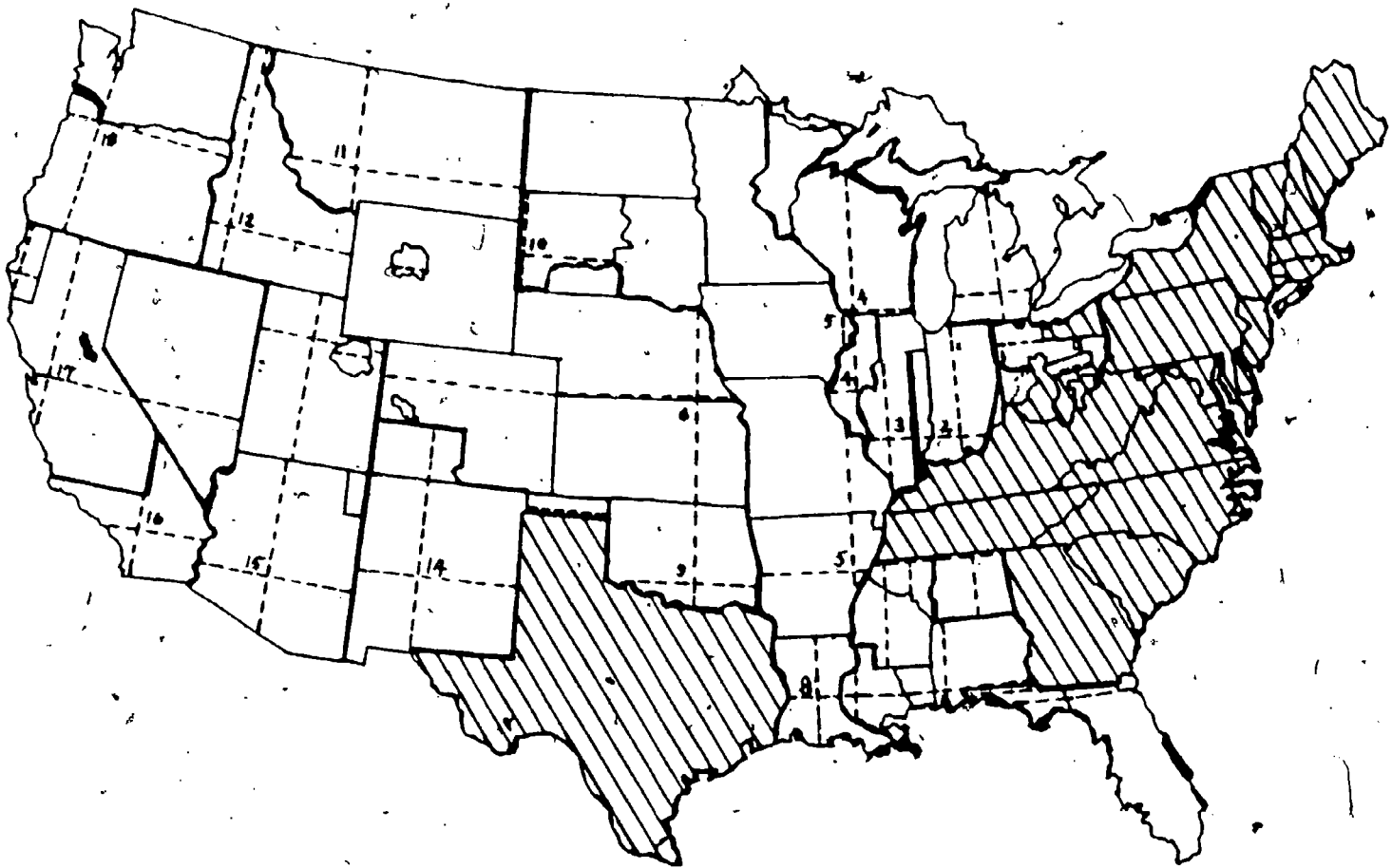
Disease	Control Measures	Treatment and Disposal
Brucellosis	<ul style="list-style-type: none"> - proper health papers must accompany animals entering the state - the owner must allow the state to test cattle for brucellosis upon request - prior to the sale, loan or service of breeding stock, proper brucellosis certification must be obtained - animals are tested using a ring test or agglutination test 	<ul style="list-style-type: none"> - swine: must tag animals, may not use for breeding but may be sold for slaughter - cattle: may be quarantined or destroyed
Tuberculosis	<ul style="list-style-type: none"> - must submit all cattle for testing upon request of the state - proper health certification must be obtained for shipping, depending on the states involved - illegal to sell milk from a dairy herd until it is shown to be TB free 	<ul style="list-style-type: none"> - positive tested animals must be tagged for slaughter

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IV-1-7-63

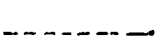
LAND DESCRIPTION SYSTEMS USED IN THE UNITED STATES



metes and bounds system

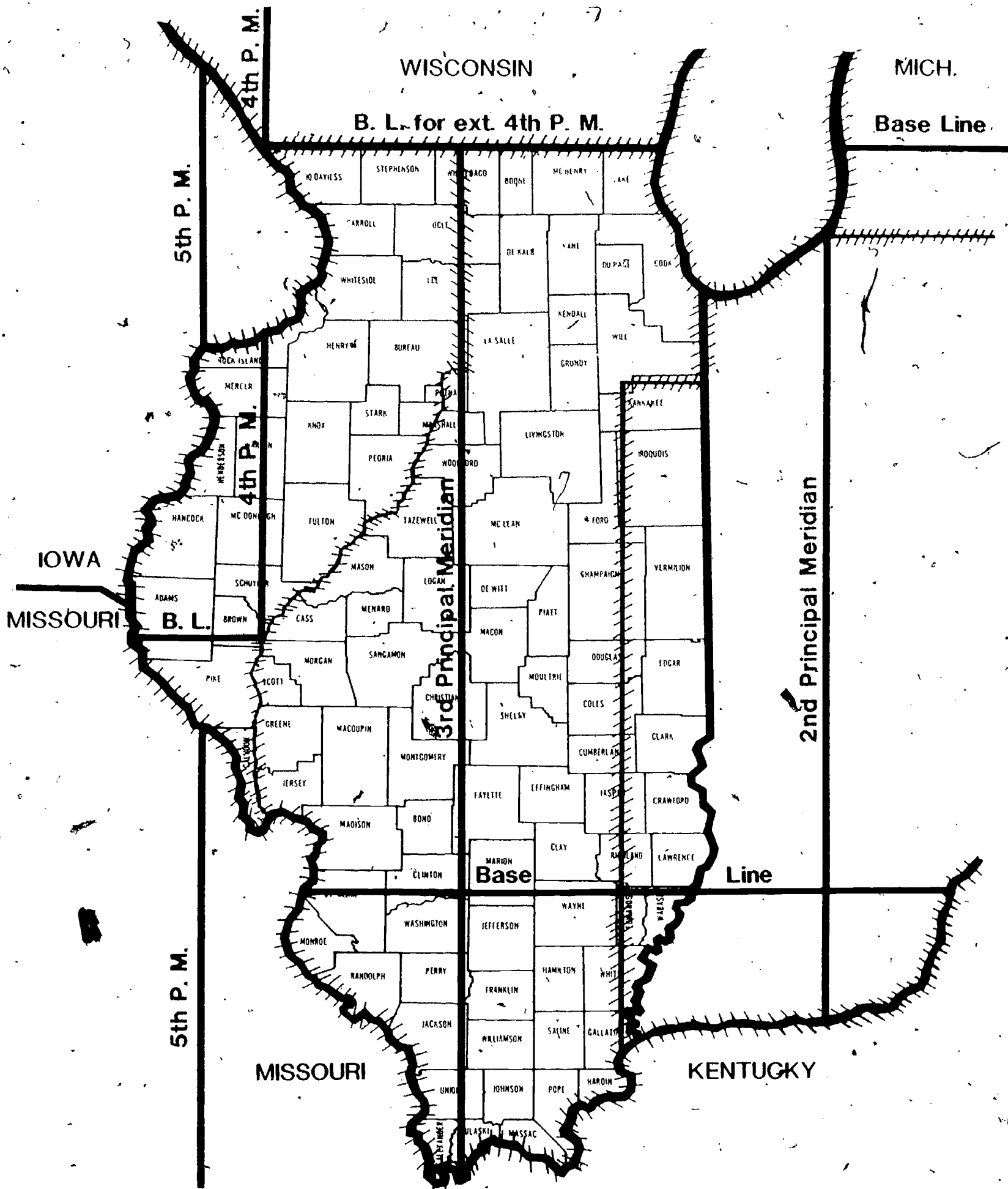


rectangular survey system

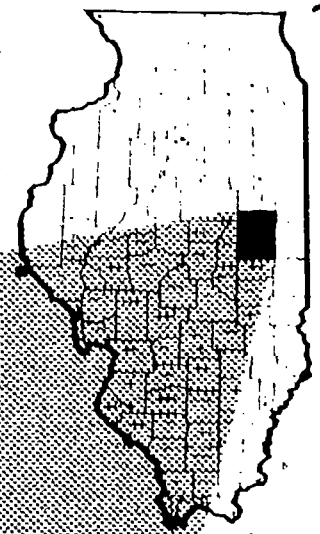


principal meridians and base lines

LOCATING PRINCIPAL MERIDIANS AND BASE LINES IN ILLINOIS



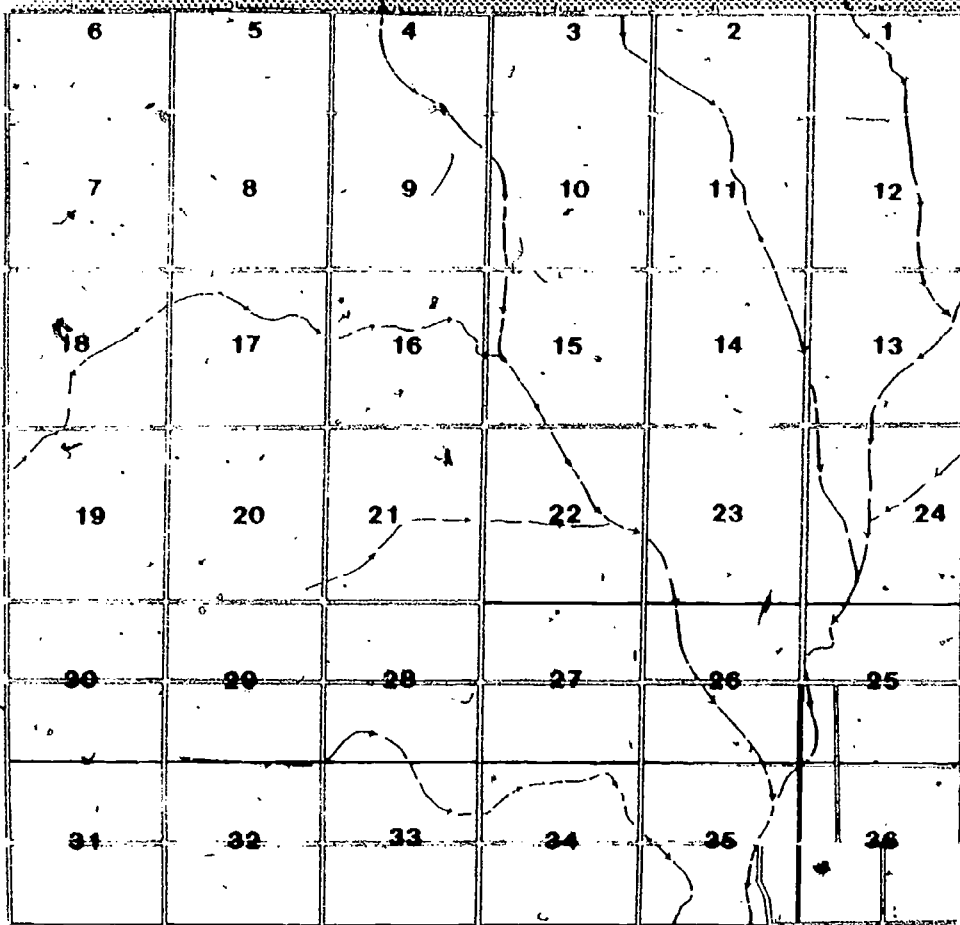
LOCATING TOWNSHIPS WITHIN A COUNTY



BROWN	EAST BEND	LUDLOW	HARWOOD	KERR
NEWCOMB	CONDIT	RANTOUL	COMPROMISE	
MAHOMET	HENSLEY	SOMER	STANTON	OGDEN
SCOTT	CHAMPAIGN	URBANA	ST. JOSEPH	
COLFAX	TOLONO	PHILO	SIDNEY	SOUTH HOMER
SADORUS	PESOTUM	CRITTENDEN	RAYMOND	AYERS

LOCATING SECTIONS WITHIN A TOWNSHIP

IRVING	LAUREL	LUDLOW	HAWKINS	PERKINS
NEWCOMB	COCHRAN	RANTOLA	COCHRAN	
MAHONEY	VIRGIL	SCOTT		
SCOTT	CHAMPAGNE	LIBANA	ST. GEORGE	COCHRAN
CLARK	TOLSON	FIELD	WENY	SOUTH HOMER
WALSH	POCOTA	WILKINSON	RAYMOND	AYERS

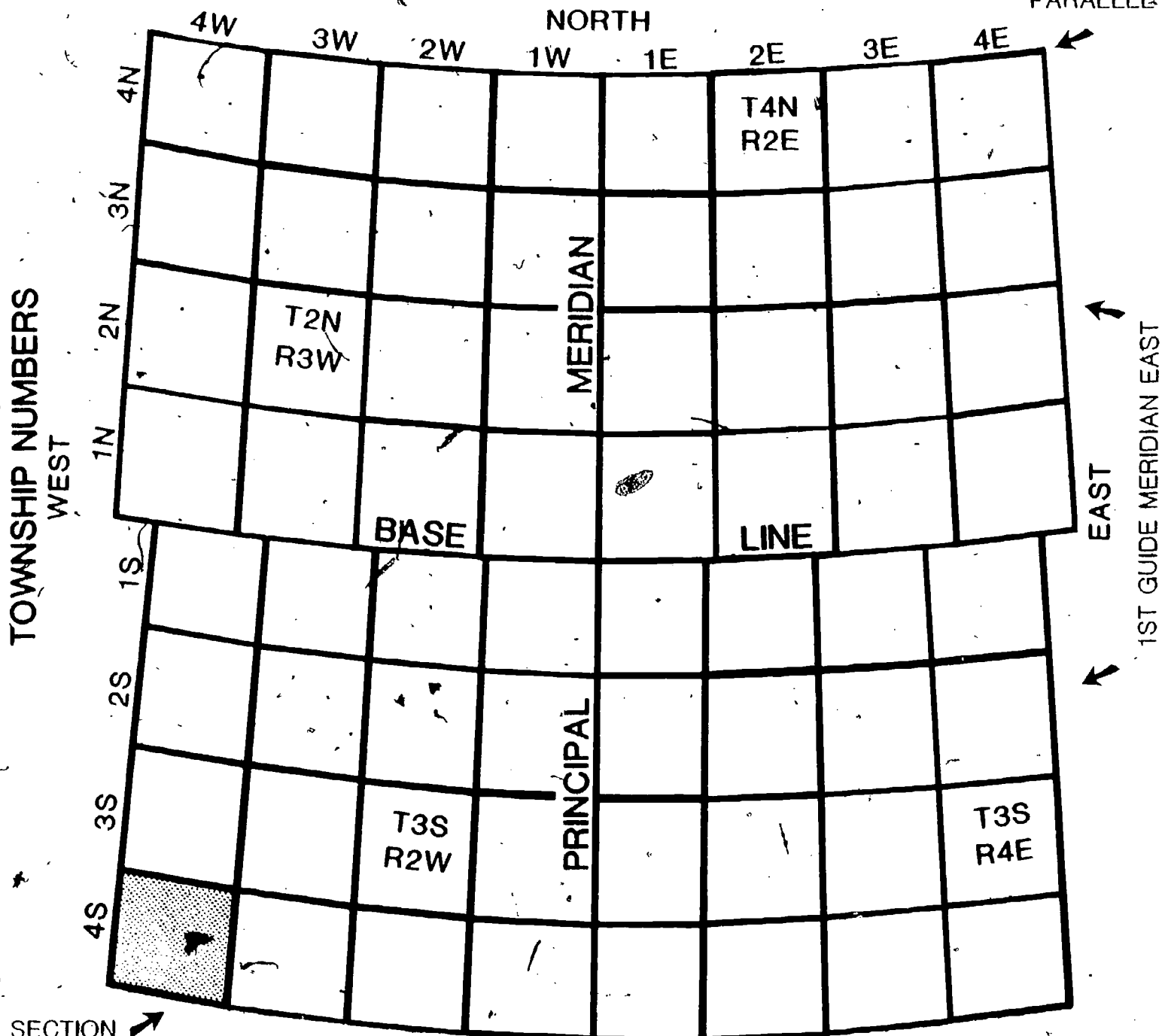


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LOCATING TOWNSHIPS

RANGE NUMBERS

1ST STANDARD PARALLEL NORTH

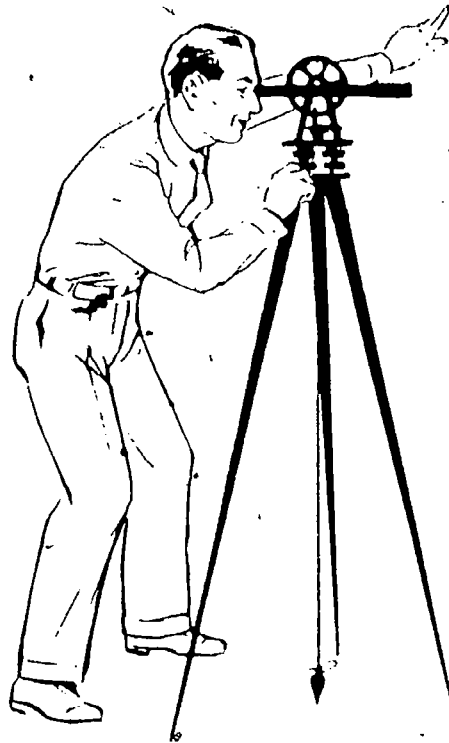


SOUTH

THE LOCATION OF A TOWNSHIP IS DETERMINED BY ITS POSITION FROM A MERIDIAN AND BASE LINE.

REASONS FOR TOWNSHIP AND SECTION IRREGULARITIES

1. CONVERGENCE OF PRINCIPAL MERIDANS AS THEY APPROACH THE NORTH AND SOUTH POLES
2. TOWNSHIPS WERE SURVEYED ACCORDING TO DIFFERENT SETS OF INSTRUCTIONS
3. SURVEYS MEETING FROM TWO DIFFERENT MERIDIANS OR BASE LINES
4. NATURAL BOUNDRIES - RIVERS, LAKES, ETC.
5. ERRORS IN THE ORIGINAL SURVEY



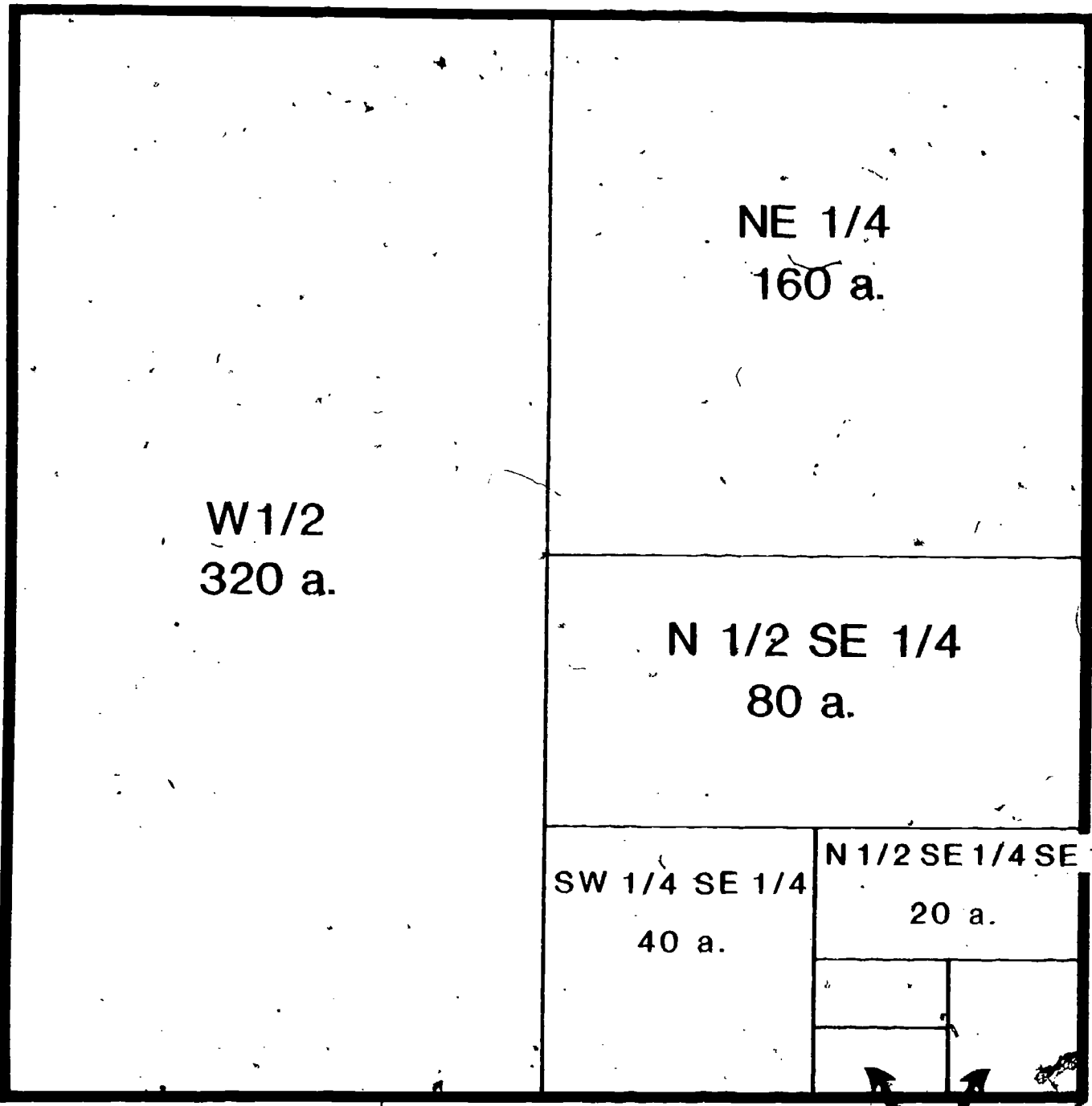
NUMBERING OF THE SECTIONS WITHIN A TOWNSHIP



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

A TOWNSHIP IS DIVIDED INTO 36 ONE-MILE-SQUARE SECTIONS

A SECTION DIVIDED INTO SMALLER TRACTS



W 1/2
320 a.

NE 1/4
160 a.

N 1/2 SE 1/4
80 a.

SW 1/4 SE 1/4
40 a.

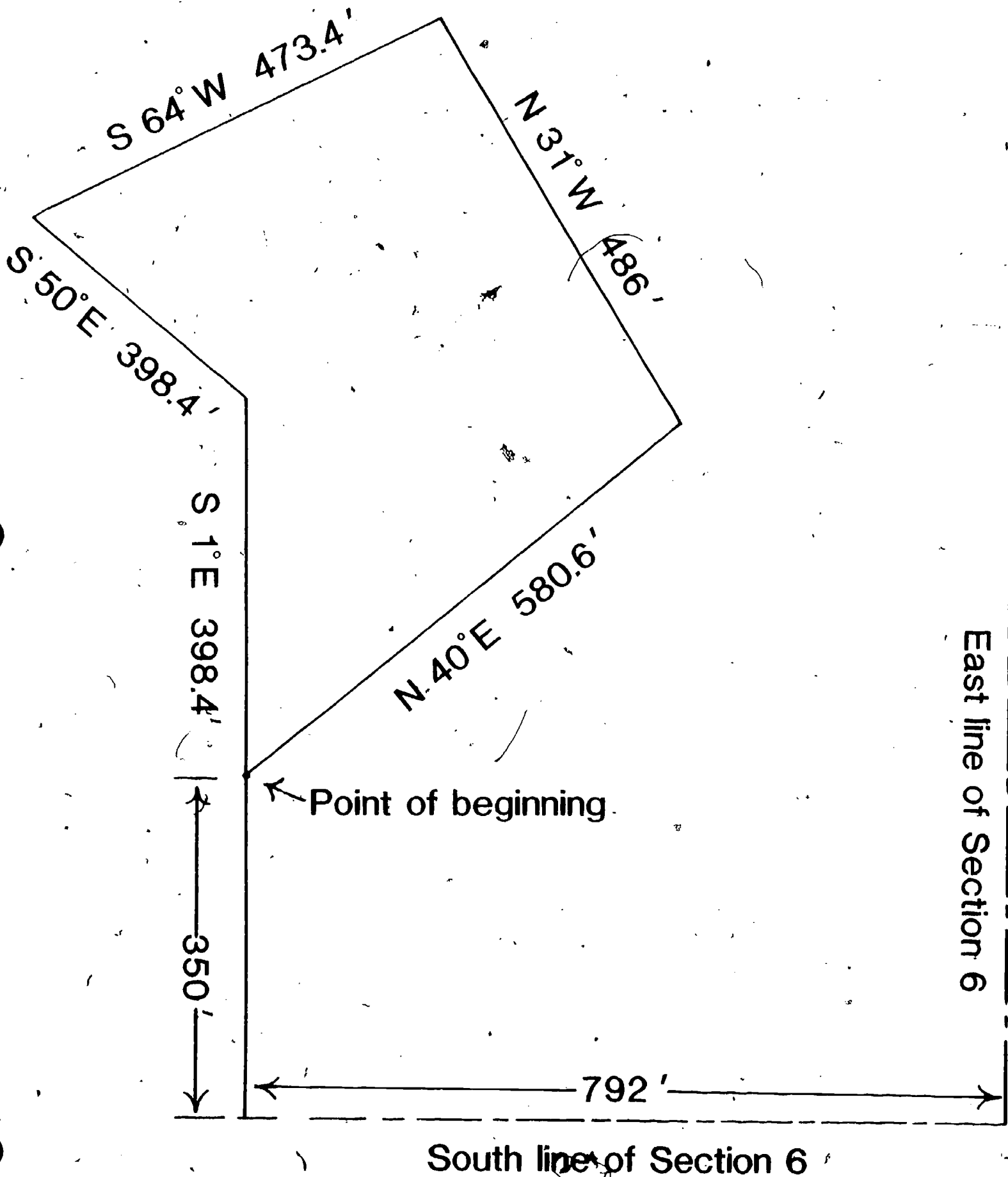
N 1/2 SE 1/4 SE 1/4
20 a.

S 1/2 SW 1/4
SE 1/4 SE 1/4
5 a.

SE 1/4 SE 1/4
SE 1/4
10 a.

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SAMPLE METES AND BOUNDS LAND DESCRIPTION



1" = 150'

FACTORS CONSIDERED IN ESTATE PLANNING

FAMILY NEEDS— CHILDREN, SPOUSE, RETIREMENT

FAMILY INTEREST AND CAPABILITY IN FARMING

VALUE OF REAL ESTATE AND OTHER PROPERTY

HOW TITLE IS HELD

AMOUNT OF PROPERTY THAT CAN BE EASILY
CONVERTED TO CASH

LIFE INSURANCE HOLDINGS

ESTATE, GIFT AND INHERITANCE TAX

BENEFITS OF ESTABLISHING A WILL

**PROPERTY CAN BE DISTRIBUTED ACCORDING
TO THE WISHES OF THE DECEASED**

AN EXECUTOR MAY BE DESIGNATED

A GUARDIAN CAN BE NAMED

**THE COST AND TIME OF SETTLING THE
ESTATE MAY BE REDUCED**

**MISUNDERSTANDING BETWEEN FAMILY MEMBERS
CAN BE PREVENTED**

STEPS IN BUYING FARM PROPERTY

- 1. FIND A CREDIT AGENCY TO FINANCE THE PURCHASE.**
- 2. HAVE AN ATTORNEY DRAW UP A CONTRACT WITH THE SELLER**
- 3. REACH AN AGREEMENT WITH THE CREDIT AGENCY**
- 4. HAVE A WARRENTY DEED EXECUTED BY THE SELLER**
- 5. HAVE THE ABSTRACT AND CHECK FOR LIENS, JUDGEMENTS AND OTHER OBLIGATIONS AGAINST THE PROPERTY**
- 6. OBTAIN NECESSARY INFORMATION CONCERNING TENANTS, EASEMENTS, MINERAL RIGHTS, SCHOOL DISTRICT, ETC.**
- 7. HAVE ANY DEFECTS IN TITLE CLEARED**
- 8. HAVE THE DEED RECORDED**
- 9. CHECK THAT THE MORTGAGE AND NOTES ARE IN ACCORD WITH THE ORIGINAL AGREEMENT**

8

TRANSPARENCY GUIDE
UNDERSTANDING BASIC AGRICULTURAL LAW
AND LEGAL LAND DESCRIPTIONS

- I. Transparency--LAND DESCRIPTION SYSTEMS USED IN THE UNITED STATES
 - A. Discuss the locations where each system is utilized. Although the map shows the major system used in each state, nearly all states use both systems to some extent.
 - B. Have the students identify advantages and disadvantages of each system.

- II. Transparency--LOCATING PRINCIPAL MERIDIANS AND BASE LINES IN ILLINOIS
 - A. Locate the base line and principal meridian used in surveying the local area.
 - B. Discuss the reasons for establishing base lines and principal meridians.

- III. Transparency--LOCATING TOWNSHIPS WITHIN A COUNTY
 - A. Discuss how the local county boundaries were determined. Point out that counties in Illinois vary in size and thus the number of townships within the county.
 - B. Discuss the differences in political, townships and legal townships.
 - C. Ask the students to estimate the total acreage within the county.

- IV. Transparency--LOCATING SECTIONS WITHIN THE TOWNSHIP
 - A. Discuss the size of the township and each section within the township.
 - B. Discuss the details included on the map, i.e., owners name, acreage size, house location, waterways, and roads.
 - C. Have the class develop a list of possible uses for the information included on a section map.

- V. Transparency--LOCATING TOWNSHIPS
 - A. Explain the directions and terminology used in describing township locations.

- B. Have the students determine the range and township descriptions of various townships.
- C. Ask students to locate a township given the range and township directions.

VI. Transparency--REASONS FOR TOWNSHIP AND SECTION IRREGULARITIES

- A. Discuss the items included on the transparency.
- B. Refer back to transparencies III, and IV, have the class identify irregular townships and sections, and discuss the possible reasons for their irregularity.

VII. Transparency--NUMBERING OF THE SECTIONS WITHIN A TOWNSHIP

- A. Explain that the numbering of townships always starts in the northeast corner and proceeds west then south and east in a snake-like fashion concluding with the thirty-sixth section in the southeast corner.

VIII. Transparency--A SECTION DIVIDED INTO SMALLER TRACTS

- A. Using the transparency discuss the various tract/field sizes frequently found within a section and their legal land description.
- B. Distribute copies of a county township and discuss how the sections are subdivided.

IX. Transparency--SAMPLE METES AND BOUNDS. LAND DESCRIPTION

- A. All metes and bounds tract descriptions must originate from a describable point or location. For this example the southeast corner of section 6, R2W, T1S of the fourth principal meridian will be used as the point of reference.

Commencing at the SE corner of the said section 6, thence west along the section line 792 feet; thence north 350 feet for a place of beginning; thence north 40° east 580.6 feet; thence north 31° west 486 feet; thence south 64° west 473.4 feet; thence south 50° east 290.6 feet; thence south 1° E 398.4 feet back to the point of beginning.

- B. Discuss the value of using a metes and bounds description when dealing with small and oddly shaped tracts of land:

X. Transparency--FACTORS CONSIDERED IN ESTATE PLANNING

- A. As a class, discuss the factors listed and how each item might affect estate planning.
- B. Have the class give examples of changes, which may result in changes in estate planning.

XI. Transparency--BENEFITS OF ESTABLISHING A WILL

- A. Discuss the benefits listed.
- B. Have the students consider when they would decide to establish a will.

XII. Transparency--STEPS IN BUYING FARM PROPERTY

- A. Review the steps listed. Ask the students to explain the importance of each step.

TEACHER'S KEY
SAMPLE TEST QUESTIONS
LAW FOR THE FARMER

TRUE(+) or FALSE(0)

- + 1. Professional legal service obtained in due time is the most economical way of handling issues that are potentially controversial or doubtful.
- 0 2. An abstract is a guaranty of good title.
- 0 3. Most countries in Illinois use the "Torrens system" of registering land titles.
- + 4. The most important purpose of a will is to distribute property according to the personal desires of the maker.
- 0 5. After an estate is distributed, the executor bills the beneficiaries for the inheritance tax.
- + 6. Transfers of property that qualify for a marital deduction, charitable deduction, or annual gift exclusion are not subject to the gift or estate tax.
- + 7. Only occupants of the land in question are excused from getting a license to hunt or fish on it.
- 0 8. Fruit on a neighbor's tree hanging over your property belongs to you.
- + 9. A land owner may use any amount of ground water as long as it is taken from his own well, even if it deprives other people of their supply.
- + 10. Law allows the owner of domestic animals to kill dogs not accompanied by their owners when the dogs are in the act of wounding or killing domestic animals.

MULTIPLE CHOICE (Choose best answer)

- F 1. For a valid will in Illinois:
- A. The maker must be of sound mind and memory and at least 18 years old.
 - B. The will must be in writing and signed by the maker.
 - C. Two or more credible witnesses must sign the will.
 - D. Only A and C are needed.
 - E. Only B and C are needed.
 - F. A, B, and C are needed.
- D 2. A will can be revoked by:
- A. Burning or tearing it in small pieces.
 - B. Making a new will, and preferably declaring in the new will that the former will is revised.
 - C. By declaring in writing that the former will is revised and having the declarations signed and witnessed in the same way as the former will.
 - D. Any of the above.
 - E. All of the above.
 - F. None of the above.

- A 3. As relationship of beneficiary to decedent becomes more distant, the Illinois inheritance tax rate:
- A. Becomes higher.
 - B. Becomes lower.
 - C. Is not affected.
- C 4. Real estate in Illinois is assessed:
- A. Every year.
 - B. Every two years.
 - C. Once every four years.
 - D. Anytime, depending on inflation.
- B 5. The owner of a farm which is lower than an adjoining farm should:
- A. Sue the adjoining farmer for water damages he incurs due to the neighboring farm's drainage.
 - B. Take the water that flows naturally to his land or arrange for its drainage.
 - C. Build a dam to back the water up on his neighbor's land and keep it off of his own land.
- E 6. If a hog dies of cholera, the owner:
- A. Should burn the carcass immediately.
 - B. Release it to a person licensed to dispose of dead animals.
 - C. Should bury the carcass more than four feet deep.
 - D. A or B.
 - E. A or B or C.
- B 7. Farmers must have a license to apply pesticides if:
- A. They apply pesticides only on their own premises.
 - B. They apply pesticides for two or more other farmers during a year.
 - C. They farm more than 640 acres.
 - D. Farmers never need a license to apply pesticides.
- D 8. Laws dealing with agriculture are important to:
- A. Tenants.
 - B. Landlords.
 - C. Hired farm laborers.
 - D. All of the above.
- E 9. Those persons excused from getting a license are:
- A. Boys and girls under 16 -- to fish with a hook and line.
 - B. Occupants of land -- to hunt, fish, or trap.
 - C. A landlord who rents to a tenant and makes proper arrangements in the lease -- to hunt, fish, or trap on the land he owns.
 - D. All of the above.
 - E. A and B.
- A 10. Trespassing animals damaging property may be taken up and kept until their owner makes good on the damage done; however, the person taking them up must notify the owner (if he knows the owner):
- A. In 24 hours.
 - B. Immediately.
 - C. In 8 hours.
 - D. In 7 days.

MATCHING (Match the correct phrases with the qualities listed.)

- | | | |
|----------|---|---------------------------|
| <u>F</u> | 1. Used to clear titles to property. | A. 32 percent |
| <u>G</u> | 2. A summary of facts in all conveyances or encumbrances affecting the land. | B. written lease |
| <u>I</u> | 3. Takes land at death of life tenant if no one else is designated. | C. \$47,000 |
| <u>J</u> | 4. Designated to take land at death of life tenant. | D. Illinois Drainage Code |
| <u>E</u> | 5. 1980 minimum wage for covered agricultural employees. | E. \$3.10 |
| <u>C</u> | 6. Tax credit on estates for 1981 and beyond. | F. quitclaim deed |
| <u>A</u> | 7. Lowest estate tax rate applied above the exemptions. | G. abstract of title |
| <u>B</u> | 8. Provides protection for landlord and tenant. | H. \$500 |
| <u>L</u> | 9. "Husband, wife, child," Illinois inheritance tax exemption on inheritances of less than \$270,000. | I. Reversioners |
| <u>D</u> | 10. Levee Act and Farm Drainage Act combined into a single act. | J. Remaindermen |
| <u>H</u> | 11. Penalty for trespassing: \$ _____ fine or 30 days in jail, maximum. | K. \$2.75 |
| | | L. \$40,000 |
| | | M. Title Clearance Law |
| | | N. Land Manager |
| | | O. 45 percent |
| | | P. \$2,000 |

COMPLETION (Write appropriate information or words to complete statements.)

1. The two types of warranties a seller of property may make are express and implied.
2. The system commonly used for registering titles to land in the largest county in Illinois, Cook county, is known as the Torrens system of registering titles to land.
3. Title insurance provides purchasers of real estate with security against any imperfections in his title that may later appear.
4. An amendment to a will may be made by a Codicil.
5. According to Illinois law a legal fence is an enclosure four and one-half feet high, in good repair and capable of keeping livestock off adjoining land and highways.
6. Two things which determine the amount of property tax a farmer pays are assessed valuation of their property and the rate (%) of the tax levy.
7. Lateral support is the support to land in its natural state from the land which lies next to it.
8. Illinois minimum wage law has a 500 man-day per quarter exemption.
9. Estray is the legal term for a domestic animal running at large, excluding dogs, cats, and poultry.
10. The use of DDT is illegal unless a permit is obtained from the Director of the State Department of Agriculture.

ESSAY QUESTIONS

1. Explain the conditions that a tenant must meet in order to remove improvements from a farm.

(See page 15 of unit.)

- a. The tenant must not owe the landlord back rent, or the landlord may hold the improvement.
- b. The tenant must have put the improvements on the land himself.
- c. The tenant must remove the improvements before his term expires.

2. Discuss three legal considerations that apply to farm labor.

(See page 15 - 17 of unit.)

- a. Examples: Many short-term agreements are oral. However, if the term of employment agreed on is for a year or more, the agreement to be enforceable must be in writing and signed by both the employer and employee.
- b. A farm employee's liability will either be determined by common law principles (such as related to employer's negligence) or under Workmen's Compensation principles.
- c. Most farmers employing 500 man-days or more of labor during a calendar quarter take out Workmen's Compensation insurance (and some with less than that if they want to be covered by the insurance).
- d. A farmer is not covered under the Minimum Wage Law unless he hires at least 500 man-days of labor during a calendar quarter.
- e. A farmer is not covered under the Employment Compensation Act unless he pays \$20,000 of cash wages in a calendar quarter or employs more than 10 employees on at least 1 day during each of 20 weeks.

TEACHER'S KEY
SAMPLE TEST QUESTIONS
LAND SURVEYS AND DESCRIPTIONS

TRUE (+) - FALSE (0)

- 0 1. A legal chain has 50 links.
- + 2. The United States was the first country to use a rectangular system of land survey.
- + 3. A clear title means that there are no legal claims against the ownership of property.
- 0 4. In 1785, the Illinois State Legislature passed a law directing that a rectangular system be used in surveying all Illinois public lands.
- + 5. A land title, or a title to a tract of land, is evidence of ownership.
- + 6. The location of the township is determined by the principal meridian and base line.
- + 7. Ten square chains are equal to one acre.
- + 8. Difficulties sometimes occur with the metes and bounds system when rocks or trees are used as markers.
- 0 9. A rod (distance) is 4 yards or 12 feet in length.
- 0 10. Most of Illinois has been surveyed by the metes and bounds system.

MULTIPLE CHOICE (Make appropriate choice of A, B, C, or D)

- B 1. A legal chain is _____ feet long.
- A. 50
B. 66
C. 88
D. 100
- C 2. There are _____ square miles in a regular township.
- A. 6
B. 16
C. 36
D. 160
- D 3. Irregular townships and sections occur because of:
- A. The meeting of two different surveys
B. Surveyors' errors
C. Curved surface of the earth
D. All of the above
- C 4. In the Eastern part of the United States, the main system used for describing land was:
- A. Rectangular land survey
B. Permanent markers
C. Metes and bounds
D. None of the above

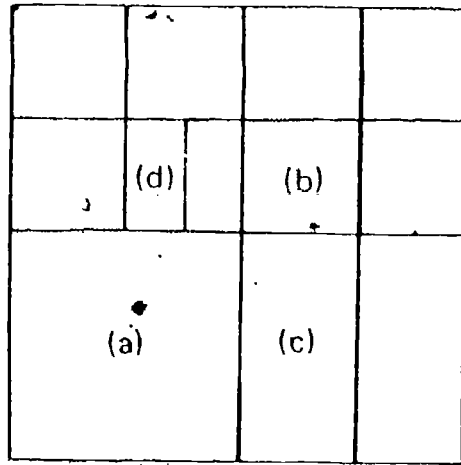


Fig. 1. Four tracts of land within a section.

- D 5. The number of acres in (a) above (Fig. 1):
- A. 20
 - B. 40
 - C. 80
 - D. 160
- D 6. The description of (b) above (Fig. 1):
- A. S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$
 - B. S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$
 - C. S.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$
 - D. S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$
- A 7. Description of (c) above (Fig. 1):
- A. W. $\frac{1}{2}$ of S.E. $\frac{1}{4}$
 - B. W. $\frac{1}{2}$ of S.W. $\frac{1}{4}$
 - C. W. $\frac{1}{2}$ of N.E. $\frac{1}{4}$
 - D. E. $\frac{1}{2}$ of S.E. $\frac{1}{4}$
- B 8. Acres in (d) above (Fig. 1):
- A. 5
 - B. 20
 - C. 40
 - D. 80
- C 9. There are _____ sections in a regular township.
- A. 6
 - B. 16
 - C. 36
 - D. 160
- A 10. Acres in a tract of land that is one mile by three-quarter mile:
- A. 480
 - B. 320
 - C. 240
 - D. 120

MATCHING (Select the matching answer from the right column that most accurately or appropriately fits each item or description in the left column.)

- | | | |
|----------|--|-------------------------|
| <u>E</u> | 1. Tract of land one-quarter mile by one-half mile. | A. 36 sections, |
| <u>I</u> | 2. Tract of land one-half mile by three-quarters of a mile | B. 66 feet |
| <u>C</u> | 3. A square 160 acres | C. 160 rods by 160 rods |
| <u>K</u> | 4. A square 40 acres | D. 120 acres |
| <u>F</u> | 5. A rod (measure of distance) | E. 80 acres |
| <u>B</u> | 6. Surveyor's chain (legal chain) | F. 5½ yards |
| <u>M</u> | 7. One acre | G. 40 rods by 40 rods |
| <u>H</u> | 8. Evidence of ownership | H. Clear title |
| <u>J</u> | 9. Part of a legal description | I. 240 acres |
| <u>A</u> | 10. Township | J. SW¼ of Section 7 |
| | | K. 80 rods by 80 rods |
| | | L. Abstract |
| | | M. 160 square rods |
| | | N. 15½ feet |

COMPLETION (Write appropriate information or words to complete statements.)

- To make possible private ownership and property transfer, it is essential to have a system through which a purchaser can obtain a clear title to any tract of land.
- A regular township -- that is, a survey township and not a governmental subdivision -- is six miles square.
- A township is located with reference to its base line and principal meridian.
- The legal description of property is given on many documents and papers, such as abstracts, deeds, and tax statements.
- Sections in a township are numbered from 1 to 36 beginning at the upper right or northeast corner of the township.
- In order to transfer real estate, its location must be positively and specifically described.
- Meridians are north and south lines.
- Base lines are east and west lines.
- A description according to the metes and bounds system must have a starting place and continue for specified distances along lines called courses until the tract has been circumscribed and the starting point again reached.
- Title to real estate is dependent upon a legal description of property based on an official survey.

ESSAY QUESTIONS

1. Relate how private ownership of land and property transfer is dependent upon an official survey.

(See page 1 of subject matter unit)*

2. Briefly describe the two systems of land surveys and descriptions used in the United States.

(See pages 1-3 of subject matter unit)

UNIT I: AGRICULTURAL BUSINESS MANAGEMENT

PROBLEM AREA: PLANNING AN AGRICULTURAL PRODUCTION BUSINESS

SUGGESTIONS TO THE TEACHER:

This problem area is essentially an exercise in planning or replanning a farm business. The justification for teaching farm planning to students of vocational agriculture, many of whom are not farm-oriented, is based on the following assumptions:

1. Many of the principles and concepts used in farm planning can be applied to non-farm, business planning and to planning in general.
2. The farm business is the type of small business most prevalent in rural communities.
3. Real examples in the local community and problem farm information from Vocational Agriculture Service are available to most teachers.
4. Most vocational agriculture students can relate better to planning a farm business than they can to planning a non-farm business.

This problem area includes information and teaching materials for the following areas which are considered to be the essential steps in farm planning:

1. Inventorying the farm resources
2. Planning the land-use program
3. Estimating the value of crop production
4. Planning the livestock program
5. Estimating the value of livestock production
6. Estimating labor needs
7. Estimating the costs for buildings, equipment, and fertility
8. Estimating net earnings
9. Planning to meet credit needs

In addition, an introductory section on the definition and importance of planning is included. Lists of anticipated problems and concerns of students have been developed for each of these steps or parts, so teachers can choose the areas they wish to teach, and still use the teacher's guide.

No recommendation on the amount of time needed to teach this problem area is given since this will depend on how many of the steps are taught and the depth of the instruction. Conceivably, one could spend an entire semester on this problem area; however, most teachers will probably want to limit the instruction to a shorter period so that other important problem areas can be covered.

A decision regarding how the farm planning problem is to be handled must be made early in the year by the instructor. Choices include using the

farm problem provided by Vocational Agriculture Service which is probably the easiest and best way to go. However, some teachers may want to use a local farm as an example or have students do planning for their own farms. Some teachers may choose a combination of these approaches.

The teaching approach and the selected content will affect the instructional materials that need to be obtained. These materials should be ordered early so they can be reviewed and studied in advance of the time instruction is to begin.

In teaching this area teachers should utilize computer software whenever possible. Students should be exposed to the many possibilities for using the computer to plan an agricultural business. Descriptions of selected computer programs available from Vocational Agriculture Service are included in the Teacher's Guide.

CREDIT SOURCES:

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The teacher's guide, student worksheets, information sheets and test questions were developed by Paul E. Hemp, Department of Vocational and Technical Education, University of Illinois, and reviewed by William P. Hunter, Specialist in Agricultural Economics, Vocational Agriculture Service.

Additional suggestions and recommendations were provided by the following Illinois teachers of vocational agriculture who reviewed the early drafts:

Clarence Tipton - Serena High School
Floyd Wohrley - Kewanee High School
Everett Moeller - Beecher High School

TEACHER'S GUIDE

- I. Unit: Agricultural business management
- II. Problem area: Planning an agricultural production business
- III. Objectives: At the close of this problem area, students will be able to:
 1. List the steps in planning a farm or non-farm, agricultural business.
 2. Explain the value and importance of planning an agricultural business.
 3. Use the planning forms included in this problem area correctly.
 4. Develop a plan for a farm or non-farm business and justify its contents.
 5. Utilize a computer to make planning decisions.
- IV. Suggested interest approaches:
 1. Ask students to name common life activities where a plan is necessary and/or desirable, i.e., game plan for an athletic contest, building plan for construction, plan for a vacation trip.
 2. Announce the problem area to be studied. Write it on the chalkboard and explain to the class what the nature and scope of the problem area is.
 3. Emphasize the relevance of this problem area to all members of the class. Explain how the principles learned might be applied to planning in the non-farm sector.
 4. Raise the following thought-provoking questions related to planning:
 - a. "Why do most farmers raise corn and soybeans rather than oats or wheat?"
 - b. "Why do some farmers restrict their farm production to cash crops?"
 - c. "How large should a farm business be?"
 - d. "What factors affect what a farmer grows or produces on his or her farm?"
 5. Discuss how the problem area may benefit class members now or in the future. Remind students that farmers and other entrepreneurs are responsible for planning their businesses.

V. Anticipated problems and concerns of students:

A. Introduction to Farm Planning

1. What is farm planning?
2. What are the steps in farm planning?
3. How is the size of a farm business measured?
4. How can the size of a farm business be increased?
5. How should one determine the best size of business?
6. How has the size of farms changed during the past 50-60 years?
7. What is a "family farm"? a "corporation farm"?
8. How does non-farm work or income affect the size of farm business one can handle?
9. What resources are used in farm production?
10. What is "management"? Why is it important?

B. Inventorying Resources for Farm Planning

1. What is an inventory?
2. What resources need to be inventoried?
3. What information should be collected for each of these resources?
4. What farms can I use to take an inventory?
5. Where can I obtain the necessary information?

C. Planning the Land-use Program

1. How are crops classified and what are some examples of crops that fit each classification?
2. What crops grown in Illinois are high-profit crops?
3. What crops grown in Illinois are best for erosion control? Why?
4. Which crops are the heaviest feeders of soil nutrients?
5. How can I decide which crops to grow?

6. What crop sequences can be used successfully in this community?
7. Under what conditions should I adjust the cropping system originally planned?
8. What is "sound land use"?
9. Why should we follow a sound land use program? Consider this question from the viewpoint of both the owner operator and society as a whole.
10. What factors should be considered in selecting a cropping system?
11. What are some rotations and cropping systems commonly used in this area?
12. What does the formula 2-1-2 mean when referring to cropping systems?
13. What are the eight land classes and how should they be used?
14. How can we estimate probable soil loss for various cropping systems?
15. What is the universal soil loss prediction equation and how can it be used?

D. Estimating the Value of Crop Production

1. Why do we need to estimate the amount and value of crops to be produced under a particular cropping system?
2. What factors affect crop yields?
3. What sources of information are useful in estimating crop yields?
4. What farms can be used to estimate crop production?

E. Planning the Livestock Program

1. What functions do livestock perform on a farm?
2. Which classes of livestock are best suited to a farm where a lot of roughages are produced?
3. Which classes of livestock require high percentages of concentrates in their diet?
4. Which classes of livestock require the greatest amount of labor?

5. Which classes of livestock require the greatest amount of capital?
6. What are "competing enterprises"?
7. What are "complementary enterprises"?
8. What is a "supplementary enterprise"?

F. Estimating the Value of Livestock Production

1. Why should the value of livestock production be calculated?
2. What forms can be used for this purpose?
3. How should the forms be completed and used?

G. Estimating Labor Needs

1. What kinds or types of labor are used on farms?
2. What are some problems employers face when they hire seasonal labor?
3. What are some problems which must be handled when hiring full-time workers hired on a year-around basis?
4. How can a farmer reduce labor needs on the farm?
5. What is a labor distribution chart and how is it used?
6. How can a farmer improve work conditions and job satisfaction for employees?
7. What forms can be used to estimate labor needs?
8. Where can information and standards for labor needs be obtained?

H. Estimating Costs for Buildings, Equipment and Fertility

1. What forms can be used to estimate building, equipment, and fertility costs?
2. Where can information regarding these costs be obtained?
3. What is the difference between equipment and buildings?
4. What is "mechanization"? How has it affected agriculture?
5. What is the principle of "resource substitution"?
6. What is the difference between fixed costs and operating costs?

7. How can fixed costs of machinery and equipment be reduced?
8. What factors should be considered in buying machinery and equipment?
9. What can be done after machinery and equipment have been purchased to keep operating costs down?
10. What economic considerations should be kept in mind when planning a fertility program?
11. How can a farmer decide how much fertilizer to apply?
12. What is the principle of diminishing returns and how does it apply to the planning of a fertility program?
13. What is the principle of equimarginal returns and how can it be used in planning a program?
14. What can a farmer do to get the most from his fertilizer dollar?
15. What is a fertility build-up program?
16. What forms can be used to estimate fertility costs?
17. Where can information regarding fertility needs of crops be obtained?

I. Estimating Net Earnings


1. What forms are used to estimate earnings?
2. How can alternative farm plans be compared and used?
3. How should "income possibilities" forms be used?

J. Planning to Meet Credit Needs

1. How can credit needs for a given farm plan be estimated?
2. How can a farmer decide whether or not to borrow money for a particular activity or investment?
3. When does it pay to borrow money?

VI. Suggested learning activities and experiences:

1. Conduct an interest approach to accomplish the following:
 - a. Create student interest.

- 
- b. Convince students of the importance of this problem area.
 - c. Provide students with an overview of the problem area.
2. Lead class in a discussion of desired and probable learning outcomes of this problem area. Refer to objectives listed in Section III.
 3. Conduct an orientation session using the problems and concerns listed under Introduction to Farm Planning in Section V. Information on questions which require a specific answer can be found in VAS Units 2001b and 2013a. Other questions call for opinion and can be used to bring out different points of view.
 4. After conducting an orientation or introductory session for this problem area, organize remaining instruction in one of the following ways:
 - a. Conduct class discussion and study for each of the 9 steps included in this problem area and then involve students in the farm problem available from Vocational Agriculture Service.
 - b. Conduct class discussion and study for one of the steps (take them in sequence) and then have students do this operation for the farm problem.
 5. Each of the 9 steps included in this problem area can be handled as separate mini problem areas. For example, the first step, "Inventorying Resources for the Farm Plan," can be developed as a problem area by developing a list of student problems and concerns, discussing these problems and concerns, and then having students actually conduct an inventory of farm resources.
 6. Repeat this problem identification-study-application process for each of the 9 steps.
 7. Utilize transparencies, filmstrips, and subject matter units to provide information and to develop solutions to problems. Use other reference material as needed.
 8. Select a resource person who has done a good job of planning a farm business and bring him or her into the class to present the plan and explain why it is followed.
 9. Encourage and/or require students to develop a plan for their home farm. If time is a problem, only certain planning activities may be required.
 10. Use the computer whenever possible to make planning decisions or to illustrate problem solving exercises.

VII. Application procedures:

1. For those students who live on farms or have relatives who live on farms, direct applications of this problem area to a real-life situation may be possible.
2. For other students, parts of the problem area may be applied to S.O.E. programs or to other life areas where planning is needed.

VIII. Evaluation:

1. Develop and administer a pencil-paper test using sample questions included in this problem area.
2. Grade student farm plans for completeness and accuracy.

IX. References and aids:

1. VAS Unit 2001b Planning a Profitable Farm Business
2. VAS Unit 2013a Planning to Have an Adequate Size of Business
3. VAS Unit 2002b Inventorying Resources for Farm Planning
4. VAS Unit 2003b Planning the Cropping System
5. VAS Unit 2006b Choosing Specific Crops to Grow and Estimating Production
6. VAS Unit 2012b Planning Livestock for the Farm
7. VAS Unit 2010b The Soil Fertility Program--Economic Considerations
8. VAS Unit 2043 Income Possibilities for Your Farm
9. VAS Unit 2004a Field Arrangement Principles
10. VAS Unit 2039a Fitting Machinery and Equipment to the Farm
11. VAS Unit 2035a Balancing the Labor Supply and the Farm Business
12. Planning Your Farm Business, by J. H. Herbst and revised by D. J. Balzer, 1982 edition.
13. Key to Planning Your Farm Business.
14. Farm Management Manual, 1983.
15. Problem Illustration for Planning Your Farm Business.
16. Income Possibilities on Your Farm.

17. Partial Budgets and "Break-Even" Problems.
18. Key to Partial Budget Form.
19. VAS Slidefilm 370-A, Inventory Your Resources.
20. VAS Slidefilm 371-A, Planning the Cropping System and Estimate the Value of Crop Production.
21. VAS Slidefilm 372, Plan the Livestock System and Estimate Fertility Costs.
22. VAS Microcomputer Program in Agriculture--Livestock Budget.

This program is designed to allow the user to evaluate the income and costs of livestock production, allowing for various options.

23. VAS Microcomputer Program in Agriculture--Fertilizer Cost.

This program is designed to allow the user to determine the fertility requirements of a crop and the cost of meeting the crop's fertility requirements.

24. VAS Microcomputer Program in Agriculture--Crop Budget.

This program is designed to allow the user to modify and observe the break-even price required for a crop to return a profit when input variables are changed.

25. VAS Microcomputer Program--Income Possibilities.

This program is designed to provide an estimate of income, direct costs, and selected other costs for crops and livestock in a farm plan.

26. VAS Microcomputer Program--Machinery Decisions.

This program is designed to assist the user in calculating:

1. machinery field capacity.
2. cost of owning new equipment.
3. shared costs of machinery ownership.
4. custom rate computations.

27. VAS Microcomputer Program--Soil Loss Equation.

This program is designed to allow the user to develop a land-use plan that will maximize returns while maintaining an allowable soil loss.

INFORMATION SHEET

ARE YOU A GOOD MANAGER?

The functions of management are making decisions and accepting risks. A good manager usually realizes better earnings than a poor manager. To help appraise your management ability, answer the following questions.

1. Do you get your work done on time?
2. Do you keep good records?
3. Do you make sound management decisions?
4. Are you progressive--looking for new ideas and practices to adopt?
5. Do you manage your finances properly?
6. Can you manage hired labor successfully?
7. Can you handle the enterprises you plan to carry on?
8. Do you study your business, analyze and evaluate it?

INFORMATION SHEET
HOW ARE CROPS CLASSIFIED?
TYPES AND EXAMPLES

Row Crops

Corn
Soybeans

Small Grains

Oats
Wheat

Forage Crops

Bluegrass
Alfalfa

High Profit Crops

Corn
Soybeans

Low Profit Crops

Small Grain
Grass Forage Crops

Effective in Erosion Control

Grasses
Legumes
Small Grains

Soil-improving Crops

Alfalfa
Red Clover
Ladino

PLANNING GUIDE #1
INVENTORYING LAND RESOURCES*

1. Draw a map of present land use and field arrangement.
 - a. Refer to Figure 2 in VAS Unit 2002b for problem form example.
 - b. Use county plot book to obtain the outline of local farms.
 - c. Label map to show boundary lines, fences, drainage system, roads and buildings.
2. Make a chart showing recent soil treatments.
 - a. Refer to Table 1 in VAS Unit 2002b for problem form example.
 - b. Record soil test information if available or attach report.
 - c. Record applications of limestone and fertilizers for past 2-3 years.
3. Draw a soil-type map.
 - a. Refer to problem form example shown in Figure 3, VAS Unit 2002b.
 - b. Obtain a soil map on your farm from Soil Conservation Service.
 - c. If a soil map is not available, draw one using the "Soil Map of Illinois" available in most schools.
 - d. Completed map should show soil type, slope and erosion classes.
4. Prepare a table showing number of acres in each soil type.
5. Draw a land-use capability map.
 - a. Refer to a booklet on land judging for information on how to arrive at the land classes for your farm.
 - b. Refer to page 3, Planning Your Farm Business, for descriptions of land classes and color symbols.

*This outline of steps is an abbreviated version of procedures described in VAS Unit 2002b, Inventorying Resources for Farm Planning.

PLANNING GUIDE #2

PREPARING THE LABOR INVENTORY

1. Read instructions and study problem form example shown on page 7 of VAS Unit 2002b.
2. Complete the following table for a labor inventory of your farm business.

<u>Name</u>	<u>Age</u>	<u>Available</u>	<u>Work</u>	<u>Months</u>
<u>Operator</u>				
<u>Family</u>				
<u>Hired Labor</u>				
Total months of labor available				

518

PLANNING GUIDE #3

INVENTORYING CAPITAL RESOURCES

1. Read instructions and study forms on pp. 7-9 of VAS Unit 2002b.
2. Study Table 4, VAS Unit 200b, which is a capital inventory table completed for the problem farm.
3. Prepare a capital inventory for your farm including the following information:
 - a. Building Inventory. Use table outline shown on p. 8 of VAS Unit 2002b.
 - b. Fences. List kind, amount and condition.
 - c. Machinery and Equipment. List age, brand, size, condition, and owner for each machine or piece of equipment.
 - d. Grain and Roughage Inventory. Use table outline shown on p. 8 of VAS Unit 2002b.
 - e. Livestock Inventory. Use table outline shown on p. 9 of VAS Unit 2002b.
 - f. Funds Available. Follow example shown on pp. 9 and 11 of VAS Unit 2002b.

PLANNING GUIDE #4

INVENTORYING THE AVAILABLE MANAGEMENT

1. Read instructions on p. 11 of VAS Unit 2002b.
2. Answer the following questions about the operator or manager of the farm you are using for a planning exercise:
 - a. Do you have a particular preference in raising some crop or live-stock enterprise?
 - b. Do you have the ability to handle the enterprises you plan to carry on? You will have to develop that ability if you are to be successful.
 - c. Do you manage to get your work done on time?
 - d. Are you progressive--looking for and adopting new practices and ideas?
 - e. Can you manage hired labor successfully?
 - f. Do you make sound business decisions?
 - g. Do you keep good records?
 - h. Do you constantly study your farm business and keep informed on current developments?
 - i. Do you practice good financial management?
 - j. Do you think and plan or "trust to luck"?

PLANNING GUIDE #5

PLANNING THE LAND-USE PROGRAM AND ESTIMATING THE VALUE OF CROP PRODUCTION

1. Study VAS Units 2003b and 2006b before developing a land-use program for your farm.
2. Review field arrangement maps and planning exercises for problem farm included in VAS Unit 2003b.
3. Determine the cropping system to be followed on your farm using principles of sound land use described in VAS Unit 2003b.
4. Draw a map of your farm showing field arrangement and crop sequences to be followed as an ultimate goal.
5. Draw one or more maps showing field arrangements and crops to be grown during transition period.
6. Refer to p. 6, Planning Your Farm Business, for suggestions and instructions regarding maps.
7. Study Sections 4, 5, and 6 in VAS Unit 2006b to obtain background information on estimating the value of crop production.
8. Study tables in VAS Unit 2006b which show information on estimating the value of crop production for the problem farm.
9. Use table outlines and related information on pp. 8-10, Planning Your Farm Business, to complete estimates for your farm.
10. Prepare a summary table for your farm similar to Table 9 in VAS Unit 2006b.

PLANNING GUIDE #6

PLANNING THE LIVESTOCK PROGRAM AND ESTIMATING THE VALUE OF LIVESTOCK PRODUCTION

1. Before you begin to develop a livestock program, you should study Sections 1, 2, and 3 in VAS Unit 2012b.
2. Review the recommended livestock programs for the problem farm shown in VAS Unit 2012b and pay special attention to the reasons why certain combinations would be advantageous.
3. Develop two or more alternative livestock programs for your farm. Use format shown in Table 8, VAS Unit 2012b.
4. Summarize alternative livestock plans using format shown in Table 9, VAS Unit 2012b.
5. Refer to pp. 11 and 12 in Planning Your Farm Business for information on feed requirements for different classes of livestock.

PLANNING GUIDE #7

ESTIMATING LABOR NEEDS

1. Study VAS Unit 2035a, Balancing the Labor Supply and the Farm Business.
2. Review estimated labor needs and monthly distribution of labor for problem farm on pp. 3-5 of VAS Unit 2035a.
3. Study labor requirements for crop and livestock enterprises shown on p. 15 of Planning Your Farm Business.
4. Prepare a table similar to Table 4 in VAS Unit 2035a to show hours of labor needed on your farm for (a) crop enterprises, (b) livestock enterprises, and (c) overhead labor. Use data in Planning Your Farm Business to make these calculations.
5. Prepare a labor distribution chart similar to Table 5 in VAS Unit 2035a to show the monthly distribution of labor for crops and livestock on your farm.
6. Construct a bar chart similar to Figure 1 in VAS Unit 2035a to show how labor requirements are distributed throughout the year.
7. If labor requirements and labor supply differ appreciably, write a plan for adjusting the farm labor plan to make it work.

PLANNING GUIDE #8

ESTIMATING COSTS FOR BUILDINGS, EQUIPMENT AND FERTILITY.

1. Study VAS Units 2039a and 2010b to gain background information on fertility programs and machinery and equipment costs.
2. Review information on estimating fertility, equipment, and building costs on pp. 16-25, Planning Your Farm Business.
3. Use data presented on p. 29 of Planning Your Farm Business to determine building requirements for the newly-developed crop and livestock plan for your farm.
4. Estimate costs of new buildings needed using information and format shown on pp. 23-24 of Planning Your Farm Business.
5. Estimate the costs of machinery and equipment for your farm using the format shown on p. 25 of Planning Your Farm Business.
6. Estimate fertility costs for your farm using information and tables shown on pp. 16-19 of Planning Your Farm Business.

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PLANNING GUIDE #9

ESTIMATING NET EARNINGS AND MAKING CREDIT PLANS

- The following worksheet, taken from the Key to Planning Your Farm Business, can be used to estimate earnings under the new plan to compare them with what was earned under the old plan.

Item	Present Plan	New Plan
<u>Value of production</u>		
1. Total value of crops (page 10)	\$ _____	\$ _____
2. Value added by livestock (page 13)	_____	_____
3. Other cash farm income (A.S.C.S. payments, custom work, etc.)	_____	_____
4. Total value of production	\$ _____	\$ _____
<u>Expenses</u> (other than feed and purchased livestock)		
5. Hired labor, _____ months at \$ _____ per month	\$ _____	\$ _____
6. Buildings and fence		
a. Depreciation and repairs (pages 21-24)	_____	_____
b. Annual cost of new buildings to be added (pages 21-24)	XXXX	_____
7. Machinery and equipment--depreciation; repairs; custom work hired; fuel and oil; farm share of auto, telephone, and electricity (pages 21-22)	_____	_____
8. Taxes (operator's property taxes on farm business items or January 1 total farm investment times 1.0%)	_____	_____
9. Seed and crop expense (page 21)	_____	_____
10. Fertilizer (pages 17-19)	_____	_____

Item	Present Plan	New Plan
11. Livestock and miscellaneous expenses (pages 21-22)	_____	_____
12. Cash rent	_____	_____
13. Total	\$ _____	\$ _____
<u>Earnings</u>		
14. Total value of production* (line 4)	\$ _____	\$ _____
15. Total expenses (other than feed and purchased livestock (line 13)	_____	_____
16. Net Farm Income--operator's share** (line 14 minus line 15)	\$ _____	\$ _____

*The total value of production as used here does not include the value of purchased feed and livestock, since these expenses were taken out on pages 12 and 13.

**This measure corresponds to returns to unpaid labor, capital, and management.

- Refer to pp. 30-31 of Planning, Your Farm*Business for assistance in estimating credit needs and developing credit plans for the proposed farm plan. You will need to work out annual budgets for a period of years to estimate credit needs.

PROBLEM ILLUSTRATION FOR PLANNING YOUR FARM BUSINESS

This problem can be used for practice in filling in the booklet to estimate various cost and return items, including as a final figure the estimated Net Farm Income under the new plan.

The information provided assumes that the inventory of resources has been completed. It also assumes that crop acreages, yield estimates, and the kinds and amounts of livestock have been tentatively planned.

The Illustration or Key for this problem does not show calculations for alternative systems. After you complete the problem, you may want to change the crops or livestock, or both, and try to obtain a higher income (Part B).

A. Follow the suggested procedure throughout the booklet to find the estimated Net Farm Income for an operator who owns most of his land but pays cash rent on part of it. He farms 400 acres and has made tentative plans for:

Crops: 220 acres of corn; expected yield, 125 bushels @ \$2.40 per bushel
115 acres of soybeans; expected yield, 40 bushels @ \$6 per bushel
40 acres of wheat; expected yield, 55 bushels @ \$3.25 per bushel
20 acres of alfalfa hay; expected yield, 5.5 tons per acre
(5 acres are taken up by the farmstead.)

Livestock: 100 steer calves; 60 bu. corn, 1.1 tons hay equivalent, 300 pounds supplement, and 10 hours of labor per head.
(Buy at 450 pounds @ \$75 per cwt.; sell at 1,050 pounds @ \$70 per cwt.)
50 sows (two litters each in 4-litter system); 15 hours labor per litter; no pasture.
(Sales of 1,600 pounds per litter @ \$55 per cwt.)
(Average price of protein supplement for steers is \$.135 and for hogs, \$.1625 per pound.)

Labor: 23 months available, averaging 220 hours per month; 12 months of it to be hired at \$1,200 per month; overhead labor, 950 hours.

Fertility costs: Use pages 16-18 to estimate these costs. (Corn, 150 lb. N; 90 lb. P₂O₅; 90 lb. K₂O. Wheat, 40 lb. N; 90 lb. P₂O₅; 90 lb. K₂O.) Make adjustments for manure added by livestock through the corn fed and nitrogen in the alfalfa. Figure \$.24 per lb. of N, \$.30 per pound of P₂O₅, and \$.15 per pound of K₂O. Figure \$4.50 per tillable acre for limestone maintenance.

Present building costs: Similar to table on page 21. Use \$5,800.

New buildings to be added: Use pages 23 and 24; figure \$200 per steer for new feeding barn and facilities, \$1,600 per pen for a 24-pen farrowing house, and \$110 per pig times half of the pigs (800 pigs per year) for a new finishing building.

Machinery and equipment: From table on page 21, \$30,100; add \$54 per litter and \$12 per steer to take page 22 information into account.

Taxes: \$4,800

Seed and crop expense: From table on page 21, \$18,500.

Livestock and miscellaneous: From page 21, \$3,540; add \$41 per litter and \$10 per steer.

Cash rent: 160 acres cash rented @ \$110 per acre!

B. Budget alternative organizations for the same 400 acres to see if you can increase the Net Farm Income. Place a limit on capital of \$105,000 to be spent for new buildings and equipment.

KEY DECISION MAKING STEPS

Define problem

Get ideas, facts—observe situation

Analyze possible alternative solutions

Decide/select best solution

Act on decision

Accept responsibility for results

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STEPS IN FARM PLANNING

- 1. Inventory the farm resources**
- 2. Plan the land-use program**
- 3. Estimate the value of crop production**
- 4. Plan the livestock program**
- 5. Estimate the value of livestock production**
- 6. Estimate labor needs**
- 7. Estimate the costs for buildings, equipment, and fertility**
- 8. Estimate net earnings**
- 9. Plan to meet credit needs**

RESOURCES USED IN FARM PRODUCTION

1. LAND

2. LABOR – PHYSICAL EFFORT

- a. Operator's labor
- b. Family labor
- c. Hired labor

3. CAPITAL

- a. Farm improvements
- b. Machinery and equipment
- c. Livestock
- d. Supplies

4. MANAGEMENT

TEACHER'S KEY

SAMPLE TEST QUESTIONS

PLANNING AN AGRICULTURAL PRODUCTION BUSINESS -

TRUE (+) or FALSE (0)

- 0 1. Fixed costs on machinery vary with the use of the machine.
- + 2. The best plan for a particular farm can be prepared only in relation to the resources on that farm.
- 0 3. The best farm plan is one that provides the farmer with the highest gross return.
- 0 4. Sound land use refers to the use of the land to provide the farmer with the greatest profit or benefit.
- + 5. Land in Classes V, VI, VII, and VIII should not be cropped.
- 0 6. Large fields require more fence per acre than small fields.
- + 7. The amount of soil erosion is usually greater during the period May 1 - October 1 than it is during the rest of the year.
- 0 8. Small grains require more labor per acre than row crops.
- 0 9. Beef cattle herds require more labor per unit than dairy herds.
- + 10. Alfalfa is a deep-rooted crop.
- + 11. Grass forage crops inhibit erosion.
- 0 12. Small grains are heavier feeders of soil nutrients than row crops.
- + 13. You should equip the farm with basic power units and tillage equipment before purchasing specialized harvesting equipment.
- 0 14. Personal preference should be the main consideration in deciding whether or not to buy a machine.
- 0 15. Doing custom work enables a farmer to reduce the annual fixed cost of a machine.

COMPLETION (Write the appropriate word or words in the blanks provided.)

1. The first step in planning a farm business is to inventory resources presently used.
2. A field of subject matter and study which involves the problems of organizing the resources of an individual farm and carrying out farm operations to maximize returns is called farm management.
3. A farm plan cannot be properly evaluated unless the operator keeps a good set of farm records.
4. Two important ways of increasing farm earnings are to increase the size of the farm business or to increase the efficiency of operations.
5. A class of livestock which requires a 100% concentrate ration is poultry.
6. Complete use of farm resources can be achieved by the addition of livestock to the farm enterprise.
7. Enterprises which use the same resource at the same time are called competing enterprises.
8. Enterprises which contribute something or make it possible to increase production from another enterprise is called a complementary enterprise.
9. Average annual rainfall in Illinois ranges from 48 inches in the south to 32 inches in the north.
10. In general, as one moves from the south to north in Illinois, soils become darker in color, length of growing season decreases, and average annual rainfall decreases.
11. Growing more than one crop on a field in one season is called double cropping.
12. To help decide how much mechanization should be used to replace labor, the principle of resource substitution could be used.
13. A cost which remains the same regardless of how much a machine is used is called a fixed cost.
14. The principle of diminishing returns tells us that the product resulting from each additional unit of a variable resource will decline as we add more and more units.

MULTIPLE CHOICE (Make appropriate choice of A, B, C, or D)

- C 1. An example of operating costs for a tractor is
- depreciation.
 - insurance.
 - fuel.
 - taxes.
- B 2. Which of the following crops is the highest profit crop in most sections of Illinois?
- oats
 - corn
 - wheat
- D 3. A square forty-acre field requires
- 400 rods of fence.
 - 160 rods of fence.
 - 240 rods of fence.
 - 320 rods of fence.
- A 4. A rectangular, 40 acre field which measures 160 rods by 40 rods requires
- 400 rods of fence.
 - 160 rods of fence.
 - 240 rods of fence.
 - 320 rods of fence.
- C 5. An example of intensifying livestock production is:
- switch from one enterprise to another.
 - produce fewer head of livestock.
 - increase volume of livestock raised.
 - automate the feeding system.
- C 6. Which of the following sequences is not recommended?
- Forage crops follow small grains.
 - Small grains follow row crops.
 - Soybeans follow alfalfa or ladino.

SHORT ANSWER

1. Four resources used in a farm business are:

- a. Land
- b. Labor
- c. Capital
- d. Management

2. Three types of labor used on most farms are:

- a. Operator's labor
- b. Family labor
- c. Hired labor

3. Rearrange the following steps in farm planning in proper sequence or order they should be carried out (planning the livestock system, rearranging the farmstead, planning the cropping system, inventorying resources).

- a. Inventorying resources
- b. Planning the cropping system
- c. Planning the livestock system
- d. Rearranging the farmstead

4. The size of a farm business can be measured in terms of the following:

- a. Inputs
- b. Returns
- c. Production

5. Five ways to increase the size of a farm business are:

- a. Increase the acreage
- b. Intensify crop production
- c. Intensify livestock production
- d. Do custom work
- e. Carry out additional marketing processes

6. Rank small grains, forage crops, and row crops in the order that they are effective in erosion control:

a. Forage crops

b. Small grains

c. Row crops

7. What do the following letters stand for in the universal soil loss equation?

A Average soil loss in tons per acre per year

R Rainfall factor

K Soil erodability factor

LS Factor for length and steepness of slope

P Erosion control practice factor

C Cropping and management factor

8. What are three advantages of growing more than one crop?

a. Reduces risk

b. Distributes labor needs

c. Distributes machinery needs

9. What factors affect crop yields?

a. Soils and climate

b. Use of fertilizers

c. Varieties of crops

d. Insects and diseases

e. Weed control

f. Tillage systems

g. Other cultural practices

h. Row width

i. Rate of seeding

10. Four costs which are classified as "fixed" costs are:

- a. Depreciation
- b. Interest
- c. Insurance
- d. Taxes