Irrigation:

Usually irrigation is not needed on adobe rice land. However, the crop should have a moisture supply until blossoming is completed. Subbing is a good method. Never flood irrigate safflower on heavy soil.

Lygus Bug:

A Lygus bug is about the size of a fly with a flat oval shaped body. He flies rapidly and is greenish tan with a small white "Y" on his back. This insect destroys safflower buds and damages small heads. Check fields frequently while buds are forming. If more than three bugs per sweep can be caught in a standard insect net, control is advisable. Use one quart of 25% DDT in 10 gallons of water per acre. Fields planted before March 15 usually escape damage.

Harvesting:

Start when there is still a tinge of green at the base of the heads, however, all the seed should be white in color. Harvest with a grain combine. Minor adjustments are usually necessary.

Suggestions: Cylinder speed 400-800 RPM; moderately fast shaker screen; slow reel to prevent shattering; keep fuzz blown from radiators. Handle in bulk.

Marketing:

Safflower can be marketed only through an oil seed company. A purchase contract should be obtained before the crop is planted.

SAFFFLOWER ON RICE LAND

By:
Torrey Lyons
A. D. Reed

YIELDS

GROWING METHODS

COST OF PRODUCTION

University of California
College of Agriculture Extension Service
310 Old Post Office Building
Sacramento, California.
February, 1953.

UC Cooperative Extension
IS SAFFLOWER A GOOD CROP TO USE
IN ROTATION WITH RICE?

Safflower is a versatile crop for rice growers. It can follow rice or other crops, or can be used in place of wheat after the fallow year. Where wheat has drowned-out, safflower can be put in with very little land preparation. The problem in safflower production on rice land is getting it in early enough for top yield.

Costs Except for Use of Land to Produce
Safflower on Four Ranches in District 1000
In 1952

<table>
<thead>
<tr>
<th>Ranch Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Aver.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Planted</td>
<td>3/17</td>
<td>3/20</td>
<td>4/7</td>
<td>4/16</td>
<td></td>
</tr>
<tr>
<td>Date Harvested</td>
<td>8/29</td>
<td>8/29</td>
<td>9/1</td>
<td>8/20</td>
<td></td>
</tr>
<tr>
<td>Yield - Pounds</td>
<td>1700</td>
<td>1500</td>
<td>650</td>
<td>1000</td>
<td>1212</td>
</tr>
</tbody>
</table>

| Cost per Acre | Land Preparation | 4.88 | 5.58 | 2.91 | 6.11 | 4.87 |
|               | Fertilize        | 7.02 | 4.98 | ----- | 3.00 |       |
|               | Plant            | 4.65 | 4.39 | 5.56 | 5.34 | 4.99 |
|               | Total Cultural   | 15.55 | 14.95 | 8.47 | 11.45 | 12.86 |
| Harvest       | 3.20 | 5.40 | 2.87 | 6.00 | 4.37 |
| Total Cost per Acre | 19.75 | 20.35 | 11.34 | 17.45 | 17.23 |
| Cost per cwt.  | 1.16 | 1.36 | 1.74 | 1.74 | 1.42 |

These figures include cost of labor, tractor, machinery, and materials.

Labor was charged at $1.00 per hour.

Tractor and machinery costs were figured on an hourly rate sufficient to cover fuel, oil, repairs, depreciation, taxes, interest and shelter.

CROGGING SAFFLOWER ON ADOBE SOIL

Variety:
Rapid improvement of varieties is expected. At present, N-6 is the most reliable.

Seedbed Preparation:
Provide for the best possible drainage during the winter. If the field can be worked in the fall, use deep tillage and leave the soil rough. If plowing must be done in the spring, avoid working the land too wet, but conserve all possible moisture. Always work down all weeds and volunteer or planted grain before planting.

Fertilizer:
Thirty to fifty pounds of actual nitrogen per acre. The need is greatest when following rice or milo.

Seed Treatment:
Ceresan M - 1 to 2 ounces per 100 pounds of seed.

Planting:
Time: February and early March is best. After mid-March, yields drop. However, with a moist seed bed and a moisture supply through the season successful plantings can be made up to early June.

Seeding Method: Broadcasting, air plane, grain drills and row crop drills have been used successfully provided the seed is put into moisture. Usually a drill is best after March 1. Row width should not be over 12 inches unless weeds make row cultivation necessary.

Seeding Rate: Broadcast or grain drill plantings. Ample soil moisture - 40 pounds per acre. Insufficient soil moisture - 20 to 35 pounds per acre.

Seeding Depth: Plant into moist soil but no deeper than necessary. On cloddy ground, you can go as deep as 5 inches providing it does not rain before plants are up. If planting is deep, use 5 or 10 more pounds of seed per acre.
IS SAFFLOWER A GOOD CROP TO USE IN ROTATION WITH RICE?

Safflower is a versatile crop for rice growers. It can follow rice or other crops, or can be used in place of wheat after the fallow year. Where wheat has been grown, safflower can be put in with very little land preparation. The problem in safflower production on rice land is getting it in early enough for top yield.

Costs Except for Use of Land to Produce Safflower on Four Ranches in District 1000

<table>
<thead>
<tr>
<th>Ranch Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Aver.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Planted</td>
<td>3/17</td>
<td>3/20</td>
<td>4/7</td>
<td>4/7</td>
<td></td>
</tr>
<tr>
<td>Date Harvested</td>
<td>8/29</td>
<td>8/29</td>
<td>9/1</td>
<td>8/20</td>
<td></td>
</tr>
<tr>
<td>Yield - Pounds</td>
<td>1700</td>
<td>1500</td>
<td>650</td>
<td>1000</td>
<td>1212</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost per Acre -</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Preparation</td>
<td>4.88</td>
<td>5.58</td>
<td>2.91</td>
<td>6.11</td>
<td>4.87</td>
</tr>
<tr>
<td>Fertilize</td>
<td>7.02</td>
<td>4.98</td>
<td>---</td>
<td>---</td>
<td>3.00</td>
</tr>
<tr>
<td>Plant</td>
<td>4.65</td>
<td>4.39</td>
<td>5.56</td>
<td>5.34</td>
<td>4.99</td>
</tr>
<tr>
<td>Total Cultural</td>
<td>16.55</td>
<td>14.95</td>
<td>8.47</td>
<td>11.45</td>
<td>12.86</td>
</tr>
<tr>
<td>Harvest</td>
<td>3.20</td>
<td>5.40</td>
<td>2.87</td>
<td>6.00</td>
<td>4.37</td>
</tr>
<tr>
<td>Total Cost per Acre</td>
<td>19.75</td>
<td>20.35</td>
<td>11.34</td>
<td>17.45</td>
<td>17.23</td>
</tr>
<tr>
<td>Cost per cwt.</td>
<td>1.16</td>
<td>1.36</td>
<td>1.74</td>
<td>1.74</td>
<td>1.42</td>
</tr>
</tbody>
</table>

These figures include cost of labor, tractor, machinery, and materials.

Labor was charged at $1.00 per hour.

Tractor and machinery costs were figured on an hourly rate sufficient to cover fuel, oil, repairs, depreciation, taxes, interest and shelter.

CROSSING SAFFLOWER ON ADOBE SOIL

Variety:

Rapid improvement of varieties is expected. At present, N-6 is the most reliable.

Seedbed Preparation:

Provide for the best possible drainage during the winter. If the field can be worked in the fall, use deep tillage and leave the soil rough. If plowing must be done in the spring, avoid working the land too wet, but conserve all possible moisture. Always work down all weeds and volunteer or planted grain before planting.

Fertilizer:

Thirty to fifty pounds of actual nitrogen per acre. The need is greatest when following rice or milo.

Seed Treatment:

Ceresan M - 1 to 2 ounces per 100 pounds of seed.

Planting:

Time: February and early March is best. After mid-March, yields drop. However, with a moist seed bed and a moisture supply through the season successful plantings can be made up to early June.

Seeding Method: Broadcasting, air plane, grain drills and row crop drills have been used successfully provided the seed is put into moisture. Usually a drill is best after March 1. Row width should not be over 12 inches unless weeds make row cultivation necessary.

Seeding Rate: Broadcast or grain drill plantings. Ample soil moisture - 40 pounds per acre. Insufficient soil moisture - 20 to 35 pounds per acre.

Seeding Depth: Plant into moist soil but no deeper than necessary. On cloddy ground, you can go as deep as 5 inches providing it does not rain before plants are up. If planting is deep, use 5 or 10 more pounds of seed per acre.
Irrigation:

Usually irrigation is not needed on adobe rice land. However, the crop should have a moisture supply until blossoming is completed. Subbing is a good method. Never flood irrigate safflower on heavy soil.

Lygus Bug:

A Lygus bug is about the size of a fly with a flat oval shaped body. He flies rapidly and is greenish tan with a small white "Y" on his back. This insect destroys safflower buds and damages small heads. Check fields frequently while buds are forming. If more than three bugs per sweep can be caught in a standard insect net, control is advisable. Use one quart of 25% DDT in 10 gallons of water per acre. Fields planted before March 15 usually escape damage.

Harvesting:

Start when there is still a tinge of green at the base of the heads; however, all the seed should be white in color. Harvest with a grain combine. Minor adjustments are usually necessary.

Suggestions: Cylinder speed 400-800 RPM; moderately fast shaker screen; slow reel to prevent shattering; keep fuzz blown from radiators. Handle in bulk.

Marketing:

Safflower can be marketed only through an oil seed company. A purchase contract should be obtained before the crop is planted.

By:
Torrey Lyons
A. D. Reed

Yields

Growing Methods

Cost of Production

University of California
College of Agriculture Extension Service
310 Old Post Office Building
Sacramento, California.
February, 1953.