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Machinery Syndicates

An effective way of reducing the cost of hay making

By E. K. Simmons, Fodder Conservation Officer, Victorian Department of Agriculture

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Sharing of machinery by farmers is not a new thing. It was common in the 1950s because of a shortage of machinery. But many of these arrangements did not last.

Now there is renewed interest because sharing is an effective way of reducing the cost of making hay.

A farmer considering buying a rake, baler and loader to make 50 tons of hay could save about $4.80 a ton by sharing this equipment equally with a neighbour. If the farmer also shares labour with his partner instead of employing someone to help him, he could save an additional $2.85 a ton.

The biggest benefits from sharing equipment are made when output is low (from 50 to 100 tons). Under 40 to 50 tons of hay individual ownership is generally not economic. In such cases, a contractor should be employed. But there are exceptional cases in which sharing at a low level of production can be worthwhile. Check cost-of-making-hay information at the end of this article.

Beyond 100 tons, haymaking becomes an increasingly heavy and demanding job for the individual farmer. The cost-saving by sharing is still substantial, about $1.60 a ton for 100 tons.

But farmers may feel that the benefits of sharing at this level of production or beyond may be offset by the longer season, especially if labour is shared and the group is big, or if the plant is old or unreliable. They may even feel some loss of independence.

Other problems may come to mind: machinery may be wanted by different people at the same time; machinery may not be looked after properly; there may be confusion about who pays for repairs, and how to dispose of shares if a partner withdraws.

Fodder conservation specialists are confident that despite these apparent problems farmers can find sharing rewarding and successful. Benefits other than cheaper hay include:

- Better use of capital—The baler is worked over a longer season nearer its full capacity.
- Use of expensive and specialised equipment—The frustrations of making do with

Dairy farmers, especially, are faced with the need for fodder conservation to supplement summer pastures. Cost savings from machinery sharing could be a boon to many dairy farmers.
old or unreliable machinery of low capacity are removed.
• Help of skilled operators—The sharer has the opportunity to work with others who have special skills, for example a good baler operator.

How widespread is share ownership?
Sharing of farm jobs and farm machinery is common among many families. In some districts it is fairly common among neighbours. Most of these arrangements are informal because the Australian farmer traditionally prefers to be independent about such things as machinery.

A survey of 1,500 farms in Victoria carried out by Senior Young Farmers and the Department of Agriculture in 1964 found that the proportion of balers shared on these farms was about 13 per cent. Twenty-seven per cent were individually owned and 60 per cent were owned by contractors. Figures from a farm management research project conducted in the Wimmera this year by the University of Melbourne found that of 29 balers on 43 sample farms nine were shared and the rest individually owned. There may be good reasons for sharing a baler in such a district, where irregularity of “good pasture years” may make the baler an expensive machine because it is not used every year.

Guidelines for sharing
There is no single arrangement to suit all groups, but guidelines can be put down.

How to start
The farmer thinking of forming a group must be convinced that worth-while savings are possible.
He then consults likely members. His aim is to find willing and acceptable partners—men who share his outlook on farming and on co-operation. He considers whether they are likely to fit into a group in terms of equipment already owned, area of harvest, nearness to each other and other possible resources—personal or physical—including mechanical ability, storage space or workshops.

The next step is to set up the group. All members must be enthusiastic. Decisions must then be made about machinery to be shared. A baler only may be involved or a whole haymaking plant. Existing machinery may be used, and may be independently valued.

The expected annual output of hay on individual farms and in total must be calculated to determine what capacity of machine is needed.
Agreement must be reached on source of finance and the allotting of shares.

A formal agreement
The general basis for agreement on operational details must be discussed thoroughly. Ideas must be drawn together in a clear form and made into a written agreement. They may be itemised as:

Records
A group secretary who will be responsible for all transactions and records of costs and use must be appointed.

Housing
Arrangements for housing the equipment must be included in the agreement.

Operation
The operation of the plant could be one partner’s sole responsibility, rather than each member’s, especially for complex machinery such as the baler. This responsibility must be firmly allocated.

Repairs and maintenance
Repairs and maintenance could be the operator’s responsibility, or perhaps an agreement could be made with a local engineer or agent for regular maintenance.

Compensation
Provisions must be agreed to for payment or compensation to the group if loss or damage is caused through carelessness or neglect.

Fees
A contributory fee to meet working expenses or for a depreciation fund (for replacement of machines) or payment of interest, insurance and so on is necessary. Normally, each member’s fee is determined by his share in the plant or the amount of hay he makes.

Payments
Payments can be arranged by the secretary. Special payment may be made to members with special responsibility, for example to a member who may do all the baling for the group.

Rules
Members should have equal opportunity to get good hay. Members may take turns, perhaps altering the order each year or limiting the amount each should bale at first or the time each member has the machine. Rules should also include the right of members to make additional hay, and perhaps to use the machine for contracting.
Dissolution

Procedures to wind-up the group in the event of members retiring, and arrangements for transferring or allotting further shares must be included in the agreement. Once the agreement has been made it will probably be seldom referred to again. But the making of the agreement helps members to develop an understanding that will enable their enterprise to function smoothly. The mere existence of the formal agreement eliminates any need for dispute.

Do most members of syndicates experience difficulties?

The University of Reading, England, in 1962 questioned 240 farmers who were not members of syndicates about the problems they thought would develop in syndicates. The university asked 163 other farmers who were members of syndicates what problems they had experienced.

Their replies are shown in the table.

<table>
<thead>
<tr>
<th>Difficulties with sharing</th>
<th>Percentage of non-members anticipating difficulties</th>
<th>Percentage of members experiencing difficulties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine less well looked after</td>
<td>52</td>
<td>29*</td>
</tr>
<tr>
<td>Loss of timeliness affecting yields</td>
<td>50</td>
<td>27</td>
</tr>
<tr>
<td>Risk of disagreement</td>
<td>42</td>
<td>4</td>
</tr>
<tr>
<td>Loss of independence</td>
<td>40</td>
<td>nil</td>
</tr>
<tr>
<td>Arranging the machine's program</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>Organising the basis of sharing</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Finding the others willing to share</td>
<td>30</td>
<td>13</td>
</tr>
</tbody>
</table>

* 22% sometimes, 7% often.

The results show that share ownership works better than farmers anticipate. Certainly, there are risks but these may be minimised by intelligent and determined organisation. The Reading report made the following comments on the provisions needed to overcome the difficulties experienced in syndicates.

Machine maintenance

The responsibility for the proper upkeep of each machine should be allocated to one member. A complex machine should have only one operator. An independent engineer should report on the machine periodically.

Timeliness of work

The problem of arranging a machine's program to cover several paddocks on several farms is no different from arranging a similar program covering several paddocks on the one farm. The main requirement therefore is that the total work load of each machine should be well within the capacity of the baler chosen. A roster should be drawn up to ensure that each member has fair use of the equipment.

Organising the basis of sharing

Each member's contribution to the cost of the machine should be related to the use he will make of it. This should be clearly stated beforehand.

Risk of disagreement

The machines selected should be capable of handling the total work load. Agreement between members should be unanimous when drawing up rules concerning the use of the machines.

Loss of independence

Members must judge beforehand whether the loss of independence outweighs the advantages gained by sharing. Some members find that, by syndication, they achieve greater control and certainty over some hay-making operations.

Finding willing and acceptable partners

These are personal issues that farmers themselves must judge. The essential condition is that members must want the scheme to succeed.

A model agreement

The agreement outlined below is an example of the type used in the U.K. farm machinery syndicate scheme. It is not a model to be followed in detail.

**Objects**

The syndicate has a registered name and number.

The objects are defined in a broad sense to cover all types of machinery and equipment, leaving the more precise description to be made into the rules for each individual machine.

**Membership**

A syndicate must have at least two members. There is no upper limit (this may be restricted by the type of machine). New members may be admitted on terms and conditions agreed to by all members. Where a loan has been obtained or a debt incurred by the syndicate, the members undertake to bear joint and several liability. The liability is shared pro rata by the membership in accordance with the proportion of the syndicate's assets apportioned to each member. Agreement in writing must be obtained from all members before either
the machinery is purchased or heavy expenses incurred by the syndicate.

A chairman is appointed and may be given powers to manage the affairs of the syndicate.

**Maintenance, use and disposal of plant**

All members agree to:

- comprehensive insurance and periodic inspection of machinery;
- the operation of the machine on the members' farms;
- the insurance of members' employees against liability at common law while working on behalf of the syndicate on another member's farm;
- the sharing of maintenance and working costs;
- the disposal of the machine, only by the consent of all members.

**Death or retirement of a member**

Provision is made for repayment to retiring members and deceased members' estates. The retirement or death of a member does not necessarily dissolve a syndicate.

**Dissolution**

A syndicate may be dissolved on the agreement of all members, the assets being apportioned among the members in such manner as shall be mutually agreed.

**Evaluation of assets**

On death or retirement of a member, or should a disagreement arise among remaining members of the syndicate on the value and apportionment of the assets held by the syndicate, the members appoint a valuer to evaluate and apportion the assets among the remaining members.

**Arbitration**

Provision is made for the appointment of an arbiter in the event of disagreement arising which the members themselves are unable to resolve.

**Alteration of agreement**

All members must consent in writing to any alteration or amendment of the agreement. Any alterations must be registered.

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**A HANDY GUIDE TO COSTS AND OUTPUT**

### Machinery overhead costs ($)

<table>
<thead>
<tr>
<th>Item</th>
<th>New value</th>
<th>Residual value (10 years)</th>
<th>Annual depreciation</th>
<th>Interest (6%)</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mower (6 ft.)</td>
<td>460</td>
<td>40</td>
<td>42</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Rake</td>
<td>600</td>
<td>60</td>
<td>54</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Baler (p.t.o.)</td>
<td>2,900</td>
<td>400</td>
<td>250</td>
<td>87</td>
<td>6</td>
</tr>
<tr>
<td>Loader</td>
<td>480</td>
<td>60</td>
<td>42</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Trailer</td>
<td>440</td>
<td>160</td>
<td>28</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,880</strong></td>
<td><strong>720</strong></td>
<td><strong>416</strong></td>
<td><strong>147</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

### Variable running costs for machinery (cents per hour)

<table>
<thead>
<tr>
<th>Item</th>
<th>Tractor</th>
<th>Mower</th>
<th>Rake</th>
<th>Baler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td>17</td>
<td>16</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>69</td>
<td>16</td>
<td>21</td>
<td>40</td>
</tr>
</tbody>
</table>

### Machinery output

<table>
<thead>
<tr>
<th>Operation</th>
<th>Tons/hour</th>
<th>Machine hours/ton</th>
<th>Tractor hours/ton</th>
<th>Man-hours/ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mowing</td>
<td>3</td>
<td>0.33</td>
<td>0.33</td>
<td>0.4</td>
</tr>
<tr>
<td>Raking</td>
<td>6.66</td>
<td>0.15</td>
<td>0.15</td>
<td>0.2</td>
</tr>
<tr>
<td>Baling</td>
<td>5</td>
<td>0.20</td>
<td>0.20</td>
<td>0.4</td>
</tr>
<tr>
<td>Stacking</td>
<td>2.25</td>
<td>0.45</td>
<td>0.45</td>
<td>0.9</td>
</tr>
</tbody>
</table>

### Variable running costs for machinery and labour

<table>
<thead>
<tr>
<th>Machinery</th>
<th>Labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/ton</td>
<td>Cents/hour</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Tractor (52 h.p.)</td>
<td>0.68</td>
</tr>
<tr>
<td>Mower</td>
<td>0.33</td>
</tr>
<tr>
<td>Rake</td>
<td>0.15</td>
</tr>
<tr>
<td>Baler</td>
<td>0.20</td>
</tr>
<tr>
<td>Loader</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>