Picking your power

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they're doing in Europe, there's certainly some potential for innovative design in tractors," he says. Main items of interest to him: forward cabs, multiple-use tool carriers, and designs which permit faster road travel.

Best Power Size

But no matter what new design changes or features emerge in farm tractors the next few years, odds are the engines will be similar in size to today's ranges. And your drive options won't vary much over what's available now. So where do you start in sizing up your needs for the future?

"Right now, and for the next several years, most major farm power considerations are going to resolve around farmers' tillage systems," Purdue's Dosters says. "And for many farmers, that may mean less horsepower in the future." He cites the trend toward reduced tillage in many areas as a major cause.

Just how much less, on a farmby-farm basis, is indicated by a comprehensive tillage comparison study conducted the past four years by Iowa State University and several other agencies. Basic finding: The same 135 hp tractor needed to produce 400 acres of conventional corn and soybeans can handle up to 1,500 acres in a notill system.

"Of course, that doesn't mean you won't have any problems getting that much combined," USDA's Colvin says. "But in terms of hours in the field for tractor, equipment and operator, it comes out about the same for 400 acres conventional vs. 1,500 acres of notill - up to the point of combining." However, as Iowa State

University economist Dr. William Edwards points out, "reduced tillage" doesn't necessarily mean reduced horsepower requirements. "Where your're looking at the one-pass type of tilling and planting system, you can end up with a pretty expensive sort of tractor," he explains. "When you figure the horsepower needed for that type of system and the relatively few hours you run your tractor, the power cost per acre can get pretty high."

An interesting guideline for horsepower in use on the farm is offered by data from the Iowa Farm and Business Association. Its 3,800 members' machinery records indicate the following ranges of horsepower per acre: (please refer to graph.)

Farm size	HP per acré farmed
(acres)	(primary tractor used)
180-260	0.85
260-360	0.76
360-500	0.60

For example, Iowa farmers in this study (including both cash grain and livestock producers) who operate 400 acres of land probably own about 240 total tractor horsepower, on the average.

"We usually figure the major tillage tractors are getting 400-500 hours of use a year," Edwards says. "If you're quite a bit above the average with a major tractor, you'd start to wonder whether you're making efficient use of it or not.'

His figures for Iowa farmers indicate an annual machinery power cost among cash grain operators of \$65-\$78 per acre, average. That includes fuel, lube, repairs, tax depreciation and

custom hire costs. "That doesn't include any labor charges, nor interest on investment," he notes.

Edwards is co-author of a series of 14 microcomputer programs for machinery management to be published by Iowa State early in 1984.

Less Risk with Overpowering

But no matter whom you talk to about planning your farm power needs, most of them agree on two major points: 1. No formula can make your final horsepower selection for you, and 2. within reason, you probably face less risk being slightly overpowered than you do by not having enough power to get fieldwork done in a timely manner

"There are many things that you have to consider, and some of them you just can't plug into an equation," Nebraska's Bashford says. "Sometimes, what's important is just getting the job done.'

Illinois' Siemens says his experience meshes with Bashford's. 'Even if you have a computer select your tractor size, it probably would be programmed to pick the optimum size - and that's not always the most desirable, nor the best," he says. "The risk is much less by having too much equipment, compared with the risk of having equipment that is too small."

Other factors seem to creep into the picture, too. "I know no-till farmers who can handle all their planting on 400 acres just fine with a small tractor," USDA's Colvin notes. "Only problem is, their little tractor can't pull their big gravity wagons empty, let along full of grain, under less than ideal conditions. That complicates their plans to cut tractor size pretty fast.'

PMMB

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designees, one at large member named by the Secretary of Agriculture.

Agencies and their heads which will provide staff help in the study include the PMMB chairman, Dean of the Penn State Ag School and the Dean of the Wharton Business School at University of Pennsyvania.

The PMMB Bill will now return to the Senate for amendment

concurrence next week during the final days of the present Lame Duck Session.

The House is also expected to take similar Sunset Legislation action on the Farm Show Commission to keep it is business; while the State Senate has moved on the House fertilizer bill and the prompt payment to poultry producers bill.

Berks Farm - City Banquet

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take my Saturday's and Sunday's for granted. It doesn't happen on the farm. Those people don't get days off," he concluded.

Swine producer, Mike Moore was impressed with the freedom that a newsperson has to select his stories. He also observed, "we shared the same problems... labor, investments...'

After the farmer-businessman exchange reports and slides, everyone participated in quessing 20 country sounds while the judging results were tallied.

The highlight of the evening was the first Berks County public relations in agriculture awards. Tony Grimm, Chamber of Commerce, was honored with a plaque and toy tractor for his devotion of time into the ag committee and public relations work. Praised for being one of the initiators of the ag committee, Grimm was presented the award by Ernest Miller, dairy farmer and Master of Ceremonies.

For the increase in coverage of the agricultural community and events and the many pages devoted to agriculture in the Reading Eagle/Times, William Flippin, publisher, was also presented a plaque for his enhancement of ag public relations.

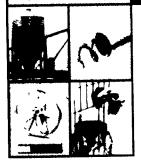
At the conclusion of the program, prizes donated by many supportive businesses, were given to the winners of the judging contests. A farm winner and a city winner was selected in each division.

As the farm-city crowd slowly dispersed a comment stated by Charles Adams, earlier in the program came to mind. "Every time I eat, I thank God that they keep doing it (farming), so that I can keep chewing."

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