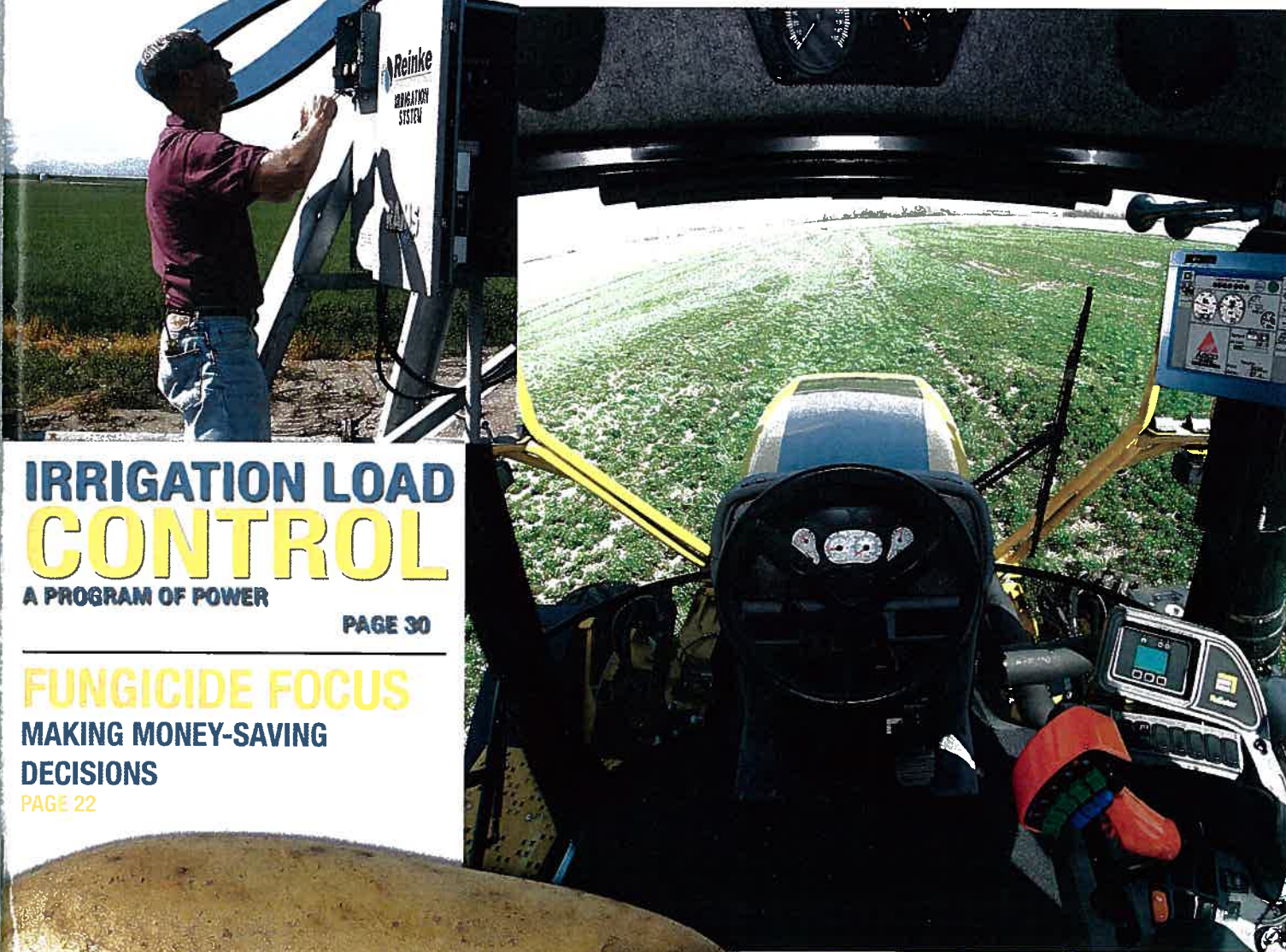


POTATO Grower



IRRIGATION LOAD CONTROL

A PROGRAM OF POWER

PAGE 30

FUNGICIDE FOCUS

MAKING MONEY-SAVING
DECISIONS

PAGE 22

USPBB PLANS

INSIDE THE
ANNUAL MEETING
PAGE 17

PRECISELY GPS

WHAT'S ON TECH

PAGE 27

Considering a Utility-sponsored Irrigation Program

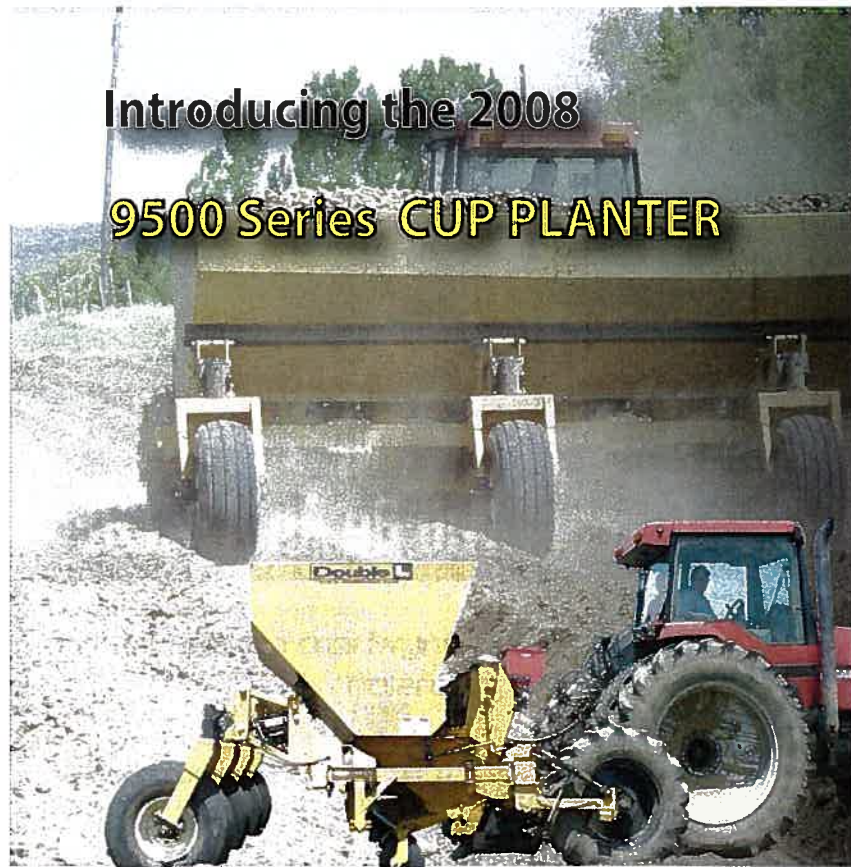
The ins and outs of load control

Nationwide there is a growing appetite for utility-sponsored irrigation load control. Following is a take on what growers and/or those in a position to advise growers need to know before leaping into utility-sponsored irrigation load control programs.

THE PEAK PROBLEM

There is a desire on hot summer afternoons (usually between 4 and 6 p.m.) for nearly everyone to want to use devices driven by electric power. This desire for power within the space of a narrow two-to three-hour window creates a "peak" (think top of the bell-shaped curve).

To the extent that growers can, as a group, mobilize and participate in well designed irrigation load control programs, they can reduce the amount that irrigation



Introducing the 2008
9500 Series CUP PLANTER

Dependable
Durable
Versatile

Double L

Visit www.doubleinc.com or call 208.226.5592 for the nearest dealer

contributes to a peak. By so doing, environmental and economic savings could be realized.

But before you or someone you know jumps headlong into a utility-sponsored program, there are a few things that deserve a second look. The recommendations below arise from having designed, implemented and operated an irrigation load control initiative for the past five years.

THE ROCKY MOUNTAIN POWER SYSTEM

PacifiCorp is a regulated electric utility serving about 1.6 million customers. The company does business under the Rocky Mountain Power brand in Utah, Wyoming and Idaho. The western section of the PacifiCorp system serves Oregon, Washington and California and does business under the Pacific Power brand.

The Utah/Idaho portion of the system has been and continues to experience significant load growth. Infrastructure assets are stressed and all efforts are being directed to do more with less. Environmental entities level pressures that make it difficult to add infrastructure. Recently, environmental organizations have taken legal action to prohibit the expansion of existing resources. It is with this background that the Idaho Irrigation Load Control Program was born.

DO PARTICIPATION CREDITS OFFSET THE RISKS?

Growers cannot and should not be easily dissuaded by the lure of participation credits. Instead, the value proposition itself should be the primary reason for participation and the deal workable within the grower's parameters of reasonable agri-business operations.

In 2003, when Rocky Mountain Power first brought the load control initiative forward, there was a single participation option: 2 x 6-hour dispatches a week. Growers were required to participate for the full irrigation season (14 weeks or 168 hours). The offering was attractive for growers raising field crops (wheat, barley, grain and alfalfa). Water sensitive row crops such as potatoes and corn were noticeably absent from participation.

Preparatory for the 2004 growing season, the Irrigation Management Team

introduced a 2 x 3-hour dispatch option and a 4 x 3-hour dispatch option in hopes of gaining additional participation. Both options were miserable failures.

We later learned that 3-hour blocks failed to carry sufficient participation credit to outweigh the labor and fuel cost of having to manually re-start the pump. Subsequently, the Irrigation Team has implemented a 1 x 6-hour option which seems to have found favor with some growers producing field crops, but still almost no row crop sites found their way

into program participation.

Only with the introduction of the 'Dispatchable' option in 2007 was there high water-use crop participation. By tariff, the Dispatchable offer was constrained by the following parameters:

- Available Dispatch Hours: 2 to 8 p.m. MDT
- Maximum Dispatch Hours: 65 hours per irrigation season
- Dispatch Duration: Not more than three and one-half hours per dispatch event

A strong start is crucial for top production and excellent quality.

"Breakfast for your Crop"
a great day begins with a well balanced breakfast, so does a great season



from Agro-Culture Liquid Fertilizers

visit us at

www.agroliquid.com



Responsible Nutrient Management

for today and tomorrow...

HIGH-PERFORMANCE
AGRO-CULTURE
LIQUID
FERTILIZERS

It is not simply about the participation credit, but rather how well the value proposition fits with the agri-business circumstances and whether or not the risk / reward metrics pencil out.

- Dispatch Event Frequency: limited to a single dispatch event per day
- Dispatch Days: Monday through Friday (inclusive)
- Dispatch Day Exclusions: July 4 and July 24 and /or their respective designated weekday official holiday

Under the Dispatchable offer, growers were able to receive the same participation credits for only one-third of the total hours. Moreover, and as part of the value proposition, growers also had the opportunity to 'opt-out' of any given dispatch event but would have their credits reduced by the amount Rocky Mountain Power would otherwise have to pay for power during the Dispatch Event.

The opt-out alternative proved pivotal in increasing program participation. The terms and conditions of the opt-out provision provided financial protections

to both Rocky Mountain Power and to growers. Under opt-out circumstances, Rocky Mountain Power would otherwise be subject to market price vagaries. Growers, on the other hand, were often faced with equipment or weather considerations which did not permit them to participate in a specific Dispatch Event. The opt-out provision mitigated the risks for both parties.

In short, the deal was realistic and appropriate. And because Rocky Mountain Power had sufficient financial protections, its interests were protected.

The bottom line is this: growers would be well advised to not engage in an irrigation load control program that fails to meet their core agri-business needs. It is not simply about the participation credit, but rather how well the value proposition fits with the agri-business

circumstances and whether or not the risk/reward metrics pencil out.

LOAD CONTROL PROGRAM

Why would a grower elect to participate in the load control program? First and foremost are the participation credits. In 2003 the credits totaled \$6.48/kW-yr. By 2007, and as a result of the overwhelming customer support and the impact to peak load reductions, credits had risen to \$11.19/kW-yr. By participating in the load control initiative growers had effectively transformed a portion of their pump costs into revenue-producing assets.

Second, growers could now remotely communicate with their pivots and linears, receive notification of unanticipated changes in pump status and issue commands to their irrigation equipment.

Please Join Us for the
18th Annual
POTATO
Grower
4 - Person Scramble
Golf Tournament



August 25, 2008
Idaho Falls Country Club
Limited to the First 144 Paid Entries
Entry Fee: \$60 Per Player

**Tee Prizes, Award
Money and Dinner
Banquet Included**

For Registration:
Call: (208) 542-2217
(208) 542-2219
Fax: (208) 522-5241
magdalene@harrispublishing.com

The benefit of the change-in-status notification option was brought to light by one grower who reported that soon after installation his phone rang at 1 a.m. On the phone was a robotic-like voice message telling him that a certain pump had turned off. At first he thought there must be some computer error, but his



curiosity got the better of him and he got dressed and went out to check.

Sure enough: lightning had interrupted the power supply and the pump, which was previously running, had now turned off. Prior to the installation of the two-way technology a grower would not discover the pump had turned off until the next day when checking his units. He would have likely lost eight hours of valuable irrigation.

THOUGHTS AND RECOMMENDATIONS

Utility irrigation load control programs can and do deliver measured impacts to electric grids which can measurably assist in improving reliability, reducing operating costs, providing important environmental benefits and, in some cases, delaying build-out of expensive infrastructure/generation resources.

Before utilities offer or growers decide to participate in such an effort there are a handful of considerations you will want to keep in mind.

Make sure your farm manager(s) is/are comfortable with the use and operation of the equipment in managing regular irrigation turns. Require reluctant farm managers to jump in with both feet in learning how to manage irrigation systems by the two-way equipment. Likewise, require that farm managers learn how to appropriately navigate

phone and secure Internet menus to accommodate dispatch Events. Be willing to invest in computer as well as remote Internet mobile connectivity technology.

If you fail to see evidence of an appropriate value proposition, control equipment that can work seamlessly with irrigation systems and systems, processes and procedures that make operations easy and efficient, work cooperatively with the utility promoting the initiative to translate these parameters into realities.

The utility is new at the Demand

Side game also. Chances are the utility providers will listen to your concerns, ideas, suggestions, opinions and recommendations and, where possible, incorporate them into the program design. After all, they have a vested interest in the success of their irrigation load control initiative as much as you do. ■

Editor's note: This article has been adapted from material that was part of the Irrigation Association's International Irrigation Show held in San Diego, Calif., in December 2007.

Your Ag Parts Leader Since 1982

Proven Quality & Reliability

We are committed to give
the *Best* products,
the *Best* service,
the *Best* price.

**We are now
your upper valley
Idaho and
Montana
SPUDNIK
parts dealer**

**TEROG
MANUFACTURING**



- Sprockets • Rollers
- Shakers • Slip Clutch
- Snugulators



- Hook Chain • Belt chain







- Rollers • Idler Rollers
- Sprocket Idlers



- Chrome Wear Parts
- Sprockets • Ripper Points
- Rollers • Shakers

SPUDNIK

Quick Splice

MAUPIN WELDING, INC.

1204 N. Yellowstone Hwy, Rexburg, ID 83440

(208) 356-4317

Fax: 208-356-4233 • Justin Maupin (208) 390-1906

www.potatogrower.com 33