

Positioning Inoculant Value With Dairy Producers

A good question to begin with is asking dairy producers if it is worth 2.5-3.5% of the value of their silage to inoculate with a research-proven product from Pioneer to help reduce shrink, enhance bunklife and improve nutritional value:

Table Values Show Percent of Silage Cost Invested in Inoculation

Cost per ton of Inoculant (in dollars per ton)	- Value of a ton of silage (in dollars per ton) -														
	\$ 20.00	\$ 25.00	\$ 30.00	\$ 35.00	\$45.00	\$50.00	\$55.00	\$60.00	\$65.00	\$70.00	\$80.00	\$ 85.00	\$90.00	\$95.00	\$100.00
\$1.00	5.0%	4.0%	3.3%	2.9%	2.2%	2.0%	1.8%	1.7%	1.5%	1.4%	1.3%	1.2%	1.1%	1.1%	1.0%
\$1.25	6.3%	5.0%	4.2%	3.6%	2.8%	2.5%	2.3%	2.1%	1.9%	1.8%	1.6%	1.5%	1.4%	1.3%	1.3%
\$1.50	7.5%	6.0%	5.0%	4.3%	3.3%	3.0%	2.7%	2.5%	2.3%	2.1%	1.9%	1.8%	1.7%	1.6%	1.5%
\$1.75	8.8%	7.0%	5.8%	5.0%	3.9%	3.5%	3.2%	2.9%	2.7%	2.5%	2.2%	2.1%	1.9%	1.8%	1.8%
\$2.00	10.0%	8.0%	6.7%	5.7%	4.4%	4.0%	3.6%	3.3%	3.1%	2.9%	2.5%	2.4%	2.2%	2.1%	2.0%
\$2.25	11.3%	9.0%	7.5%	6.4%	5.0%	4.5%	4.1%	3.8%	3.5%	3.2%	2.8%	2.6%	2.5%	2.4%	2.3%
\$2.50	12.5%	10.0%	8.3%	7.1%	5.6%	5.0%	4.5%	4.2%	3.8%	3.6%	3.1%	2.9%	2.8%	2.6%	2.5%
\$2.75	13.8%	11.0%	9.2%	7.9%	6.1%	5.5%	5.0%	4.6%	4.2%	3.9%	3.4%	3.2%	3.1%	2.9%	2.8%
\$3.00	15.0%	12.0%	10.0%	8.6%	6.7%	6.0%	5.5%	5.0%	4.6%	4.3%	3.8%	3.5%	3.3%	3.2%	3.0%
\$3.25	16.3%	13.0%	10.8%	9.3%	7.2%	6.5%	5.9%	5.4%	5.0%	4.6%	4.1%	3.8%	3.6%	3.4%	3.3%
\$3.50	17.5%	14.0%	11.7%	10.0%	7.8%	7.0%	6.4%	5.8%	5.4%	5.0%	4.4%	4.1%	3.9%	3.7%	3.5%

Dairy producers and nutritionists tend to compare prices of supplements and additives on a **per cow per day basis** – similar to corn growers comparing cost of herbicides on a per acre basis rather than on a “pint” basis. Asking the dairyman how much of particular forage they are feeding (on a wet or “as fed” basis) is a good starting point to discuss the cost of inoculation in terms of **pennies** per cow per day:

Table Values Show Inoculant Cost (in Pennies) per Cow per Day

Lbs of (as fed) inoculated forage fed/cow/day	- Cost per "ton" to inoculate (in dollars per ton) -											
	\$0.75	\$ 1.00	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50	\$2.75	\$ 3.00	\$3.25	\$3.50
1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
20	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.3	3.5
30	1.1	1.5	1.9	2.3	2.6	3.0	3.4	3.8	4.1	4.5	4.9	5.3
40	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
50	1.9	2.5	3.1	3.8	4.4	5.0	5.6	6.3	6.9	7.5	8.1	8.8
60	2.3	3.0	3.8	4.5	5.3	6.0	6.8	7.5	8.3	9.0	9.8	10.5
70	2.6	3.5	4.4	5.3	6.1	7.0	7.9	8.8	9.6	10.5	11.4	12.3
80	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0

Producers also experience “sticker-shock” with inoculant purchases because they see the entire cost on one invoice; whereas their other ingredients are billed monthly in their feed bill. It sometimes helps to put the value of enhancing home-grown (or purchased) forages in perspective to the annual cost of other commonly used ration ingredients:

Cost per day and per year for typical dairy feed additive/supplement usage

Additive/Supplement	Cents/cow/day	Dollars/cow/year	Dollars/100 cows/year	Dollars/1000 cows/year
Binding agents	12	43.80	4380.00	43800.00
TMR savors (to keep TMR fresh)	10	36.50	3650.00	36500.00
Supplemental sugar	9	32.85	3285.00	32850.00
CFT (when fed at 60 lbs silage/c/day)	9	32.85	3285.00	32850.00
Organic Trace Minerals	8	29.20	2920.00	29200.00
11C33 (when fed at 60 lbs silage/c/day)	5.2	18.98	1898.00	18980.00
Yeast culture	5	18.25	1825.00	18250.00
Buffers	4	14.60	1460.00	14600.00
Protected Amino Acids	3	10.95	1095.00	10950.00
Rumensin	3	10.95	1095.00	10950.00
Supplement of your choice				

Remember that most feed additives/supplements are paid for monthly in the feed bill whereas, inoculants are invoiced all at one time - hence the "sticker shock" compared to other products

Note: Net price of Pioneer® brand inoculants depends upon level of early pay and quantity savings (including seed) discounts.

Discussing pricing on a per cow, per day basis is often helpful in moving producers to higher performance products (e.g. from 11C33 to 11CFT):

		11C33	CFT
Typical cost/ton (dollars)		\$ 1.75	\$ 3.00
			Extra cost ("pennies"/cow/day to move up from C33 to CFT)
Lbs of (as fed) inoculated forage fed/cow/day	20	1.8	3.0
	30	2.6	4.5
	40	3.5	6.0
	50	4.4	7.5
	60	5.3	9.0
	70	6.1	10.5
	80	7.0	12.0

The extra daily cost of moving up to a Fiber Technology product like CFT can be justified by the potential increase of upwards of 2 lbs milk when feeding 60 lbs of as fed CFT-corn silage or from the removal of grain and protein from rations where FT forages are fed. For example, in a ration containing 60 lbs of CFT-corn silage, there is enough extra energy and microbial protein produced to allow the removal about 1.6 lbs of dry corn grain and 1.0 lb of 44% protein soybean meal. This means for an additional 3.75 cent investment (over 11C33), you can remove significant expense from the diet depending upon current feed cost (see charts below and the Fiber Technology Manual for more background):

Corn		Table shows savings/day from removal of different amounts of corn							
\$/bu \ lbs		0.5	1.6	2	3	4	5	6	8
2.50	0.022	0.071	0.089	0.134	0.179	0.223	0.268	0.357	
3.00	0.027	0.086	0.107	0.161	0.214	0.268	0.321	0.429	
3.50	0.031	0.100	0.125	0.188	0.250	0.313	0.375	0.500	
4.00	0.036	0.114	0.143	0.214	0.286	0.357	0.429	0.571	
4.50	0.040	0.129	0.161	0.241	0.321	0.402	0.482	0.643	
5.00	0.045	0.143	0.179	0.268	0.357	0.446	0.536	0.714	
5.50	0.049	0.157	0.196	0.295	0.393	0.491	0.589	0.786	
6.00	0.054	0.171	0.214	0.321	0.429	0.536	0.643	0.857	
6.50	0.058	0.186	0.232	0.348	0.464	0.580	0.696	0.929	
7.00	0.063	0.200	0.250	0.375	0.500	0.625	0.750	1.000	
7.50	0.067	0.214	0.268	0.402	0.536	0.670	0.804	1.071	

SBM		Table shows savings/day from removal of different amounts of soybean meal							
\$/ton \ lbs		0.5	0.63	1	2	3	4	5	6
225.00	0.056	0.071	0.113	0.225	0.338	0.450	0.563	0.675	
250.00	0.063	0.079	0.125	0.250	0.375	0.500	0.625	0.750	
275.00	0.069	0.087	0.138	0.275	0.413	0.550	0.688	0.825	
300.00	0.075	0.095	0.150	0.300	0.450	0.600	0.750	0.900	
325.00	0.081	0.102	0.163	0.325	0.488	0.650	0.813	0.975	
350.00	0.088	0.110	0.175	0.350	0.525	0.700	0.875	1.050	
375.00	0.094	0.118	0.188	0.375	0.563	0.750	0.938	1.125	
400.00	0.100	0.126	0.200	0.400	0.600	0.800	1.000	1.200	
425.00	0.106	0.134	0.213	0.425	0.638	0.850	1.063	1.275	
450.00	0.113	0.142	0.225	0.450	0.675	0.900	1.125	1.350	
475.00	0.119	0.150	0.238	0.475	0.713	0.950	1.188	1.425	
500.00	0.125	0.158	0.250	0.500	0.750	1.000	1.250	1.500	
525.00	0.131	0.165	0.263	0.525	0.788	1.050	1.313	1.575	
550.00	0.138	0.173	0.275	0.550	0.825	1.100	1.375	1.650	
575.00	0.144	0.181	0.288	0.575	0.863	1.150	1.438	1.725	
600.00	0.150	0.189	0.300	0.600	0.900	1.200	1.500	1.800	
625.00	0.156	0.197	0.313	0.625	0.938	1.250	1.563	1.875	

When the discussion eventually gets around to the cost on a "per ton" basis, the value of inoculants in reducing silage DM loss (shrink) can be further justified when considering that shrink must be replaced by an energy source similar to corn grain. A conservative 20% reduction in silage dry matter loss from 15% to 12.5% by using research-proven Pioneer® brand inoculants is worth \$1.42/ton (\$8.51-\$7.09) when the DM loss is replaced with corn valued at \$4.50/bushel.

		Percent Shrink	10.0%	12.5%	15.0%	17.5%	20.0%	22.5%	25.0%	27.5%	30.0%
Corn Cost (\$/bu)	\$2.50	\$3.15	\$3.94	\$4.73	\$5.51	\$6.30	\$7.09	\$7.88	\$8.67	\$9.45	
	\$2.75	\$3.47	\$4.33	\$5.20	\$6.07	\$6.93	\$7.80	\$8.67	\$9.53	\$10.40	
	\$6.00	\$7.56	\$9.45	\$11.34	\$13.24	\$15.13	\$17.02	\$18.91	\$20.80	\$22.69	
	\$6.25	\$7.88	\$9.85	\$11.82	\$13.79	\$15.76	\$17.73	\$19.70	\$21.66	\$23.63	
	\$3.00	\$3.78	\$4.73	\$5.67	\$6.62	\$7.56	\$8.51	\$9.45	\$10.40	\$11.34	
	\$3.50	\$4.41	\$5.51	\$6.62	\$7.72	\$8.82	\$9.93	\$11.03	\$12.13	\$13.24	
	\$4.00	\$5.04	\$6.30	\$7.56	\$8.82	\$10.08	\$11.34	\$12.61	\$13.87	\$15.13	
	\$4.50	\$5.67	\$7.09	\$8.51	\$9.93	\$11.34	\$12.76	\$14.18	\$15.60	\$17.02	
	\$5.00	\$6.30	\$7.88	\$9.45	\$11.03	\$12.61	\$14.18	\$15.76	\$17.33	\$18.91	
	\$5.50	\$6.93	\$8.67	\$10.40	\$12.13	\$13.87	\$15.60	\$17.33	\$19.07	\$20.80	
	\$6.00	\$7.56	\$9.45	\$11.34	\$13.24	\$15.13	\$17.02	\$18.91	\$20.80	\$22.69	
	\$6.25	\$7.88	\$9.85	\$11.82	\$13.79	\$15.76	\$17.73	\$19.70	\$21.66	\$23.63	
	\$6.50	\$8.19	\$10.24	\$12.29	\$14.34	\$16.39	\$18.43	\$20.48	\$22.53	\$24.58	
	\$7.00	\$8.82	\$11.03	\$13.24	\$15.44	\$17.65	\$19.85	\$22.06	\$24.26	\$26.47	
\$7.50	\$9.45	\$11.82	\$14.18	\$16.54	\$18.91	\$21.27	\$23.63	\$26.00	\$28.36		
\$8.00	\$10.08	\$12.61	\$15.13	\$17.65	\$20.17	\$22.69	\$25.21	\$27.73	\$30.25		