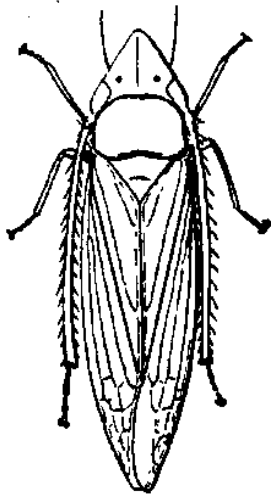


# PLANT & PEST ADVISORY

FIELD CROPS/LIVESTOCK EDITION \$1.50

SEPTEMBER 2, 1999



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## Is Planting Potato Leafhopper Resistant Alfalfa a Good Idea?

*Phillip Tocco, Salem County Program Associate*

It's getting to the time of year where people start thinking about planting alfalfa for next year's crop. If you've had serious problems with leafhoppers in the past, you may want to consider planting a resistant variety. Most growers rule out this option on the grounds that resistant seed is usually about twice the cost of regular seed. Before ruling out the possibility, it is worthwhile to sit down and figure out if it actually would pay to plant the resistant alfalfa. This article will try to give you a common sense approach on how to do this.

To begin with, you'll need to gather a little information from your past history. **How many years does a field of alfalfa remain profitable for you under local conditions?** This is important because the added cost of resistant alfalfa is actually spread over the life of the stand. So if you normally have an alfalfa rotation of 3 years, it actually costs you more per year to plant resistant alfalfa than if you have a 5 year rotation.

**How often is it necessary to treat your fields to control leafhoppers each year?** If you spray two or more times every year to control leafhoppers, the cost of insecticides may offset the added cost of resistant alfalfa. **How much on the average does the insecticide and application cost?** If you use an insecticide that is relatively inexpensive per application, the money spent on insecticide over the life of the stand may be much less than you would spend on resistant alfalfa. If you have it custom applied, this adds more to the overall cost.

**How big of a difference is there in cost between resistant alfalfa and non-resistant varieties?** If your seed supplier can offer you a deal on seed, the gap in cost between resistant and non-resistant alfalfa may alter your decision. **How heavily do you seed?** If the field you are planting has a heavier soil, you may need fewer pounds of seed per acre, decreasing the amount of extra money you'd spend. Now that we have all the information we need, we're ready to find out whether it makes sense to plant a resistant crop by putting the information we gathered into the following diagram:

SEE RESISTANT ON PAGE 2

*RESISTANT FROM PAGE 1*

(Difference in seed costs X lbs. per acre) = Costs of planting resistant varieties

Length of Stand X (# of yearly insecticide sprays X total cost of each spray) = Benefits of resistance

Then we compare our costs and benefits:

Benefits of resistance - Costs of planting resistant varieties = Cost savings to you

If the number you come up with in the "Cost savings to you" space is negative, it would cost you to plant a resistant variety. However, if it's positive, you may want to consider planting a resistant variety.

Now say a grower has a field he's considering planting to leafhopper resistant seed. He usually keeps his alfalfa stands growing for 4 years before rotating to another crop. Alfalfa fields in this grower's area are usually over threshold for leafhoppers at least twice a year. Although on average, the grower only needs to spray for leafhoppers once. He usually uses the cheapest available insecticide (\$5 per application). The grower has it custom applied, which adds \$7 an acre to the cost of application. Leafhopper resistant alfalfa seed is \$2.40 more per pound than the non-resistant seed when purchased from the seed distributor the grower goes through. The grower usually seeds at 18 lbs. per acre.

Now that we have the information, let's see if it's a good idea to plant resistant alfalfa. With this information, the cost of planting resistant varieties would be:

$$\$2.40 \times 18 = \$43.20$$

If we use the example given to calculate the benefits of resistance, we get:

$$4 \times (1 \times \$12) = \$48$$

Using the information presented, the grower would actually save money by planting a resistant variety. How would you make out? □

## Wheat Variety Selection

*Jeremy W. Singer, Ph.D., Field and Forage Crops*

The 1999 wheat variety trial results are available on the Rutgers Cooperative Extension web page at [www.rce.rutgers.edu](http://www.rce.rutgers.edu) or by contacting your County Agent. Wheat yields were generally high across the state because of favorable growing conditions in the spring and early summer. Wet conditions in South Jersey increased the incidence of disease, specifically glume blotch, but overall wheat yields were favorable.

We conducted the 1999 variety trial in northern, central, and southern New Jersey to provide wheat producers comparisons under growing conditions similar to their own. Yields were highest at the Snyder Research and Extension Farm in Hunterdon County where all varieties yielded greater than 100 bushels per acre. Typically, small plot yields are higher than commercial fields, but the relative performance of each variety provides an excellent opportunity to select high yielding varieties for production of your farm. At the Snyder Farm, there was an 18% difference in yield between the highest and lowest yielding variety. The difference was 39% at the Adelpia Research Center in Monmouth County, and 46% at Rutgers Agricultural Research and Extension Center in Cumberland County. The larger differences in Monmouth and Cumberland counties were due to disease infection among certain varieties. No disease was observed at the Snyder Farm which accounts for the lower variability and high yields.

In 1999 we also evaluated straw yields. Many wheat producers in New Jersey bale and sell wheat straw, so we expanded the study to include this information. If you find this information useful please let your County Agent know so we can continue to provide it. Measuring straw yield is extremely labor-intensive so a little feedback would be appreciated. □

# Playing the Odds: Late Summer Pasture Planting

*Daniel Kluchinski, Mercer County Agricultural Agent*

Late summer is the best time to plant pastures. Cooler weather and reliable rainfall generally occur during this time of year, providing beneficial conditions for germinating seeds and seedling growth. In addition, annual weed pressure is not as great a problem compared to spring plantings. Because of this year's extended drought, planting was questionable until the recent rainfall of the past few weeks. Since it appears that our weather patterns have shifted to more frequent rains, the weather odds may be in our favor.

However, to improve the odds for a successful late summer seeding, production practices must be done in a timely and proper manner. Attention must be given to optimize the required conditions. Therefore, plan and act now to get fields prepared. The most important factors to consider are: planting date, soil pH and fertility, variety selection, weed control, and restricting access. The following steps can serve as a guide:

- Renovate or overseed? Prolonged drought conditions put many pastures into dormancy. If forage grasses and legumes have not greened-up following the recent rainfall, they are dead. Also, walk the fields and estimate the amount of desirable species versus bare ground or weeds. If desirable forage is less than 50% of the pasture area, renovate by disking or plowing, and plant into a new seedbed. If more than 50% of the pasture is desirable forage, consider overseeding into the existing pasture.
- Plant at the right time. Research conducted at Penn State evaluated the performance of forages planted before and after the recommended fall planting. Dry matter yield (production) of alfalfa, red clover, birdsfoot trefoil, and reed canarygrass planted late were reduced the following season when compared to the same species planted by the recommended planting dates. In New Jersey, planting should be done by mid to late September. If you can't get the seed in the ground by early October, wait until next spring.
- Test your soil. Take soil samples for pH and fertility analysis. Applications of limestone and fertilizer, if required, should be applied as recommended prior to planting to help improve soil conditions. Most forage species prefer a pH range of 6.2 to 6.5, while alfalfa requires a pH range of 6.5 to 7.0 for optimum growth. If replanting, fertilizer and

limestone are best incorporated into the soil to increase availability in the root zone. If overseeding into an existing pasture, apply the fertilizer, then the seed. If soil nutrient levels are low (fertilizer rates high), split the applications so one-half is applied this fall and the remainder next March. Limestone can be topdressed any time of year when the fields are accessible, and should be split if large quantities are needed or budgets are limited.

- Control weeds prior to planting. If plowing and planting a field, existing perennial weeds should be controlled prior to plowing the field. An investment in weed control at this time will reduce future weed problems. Use of a non-residual, non-selective herbicide will control all vegetation and potential for resprouting of perennial weeds. This treatment, or a close mowing, can also be used if no-till drilling seed into the field. If overseeding with a broadcast spreader, perennials can be spot sprayed, but herbicide selection will depend on the plant species to be controlled, and the type of forage species present and to be seeded. After controlling the undesirable weeds, the fields can be mowed, lightly harrowed to scarify the surface, seed spread, and then harrowed again or rolled to ensure good seed/soil contact.
- Select appropriate crops and varieties. Choose forage species and varieties that best suit your needs and the field conditions where they are to be planted. These factors include soil pH and drainage. For example, alfalfa should be planted on well-drained soils with a pH of 6.5 to 7.0. Kentucky bluegrass does well in a wide range of soil drainage characteristics. Timothy, reed canarygrass, alsike and Ladino clover are better suited for wet areas and prefer pH or 6.2 to 6.5. Limit the number of species to 2 to 3 grass species, with 1 or 2 legumes to improve future management options such as weed control.
- Keep the animals off! Failure can be assured if animals are allowed to graze too early on the seedlings. The plants must reach a minimum of 8 to 10 inches in height before grazing, and then should only be grazed lightly for the remainder of the year. This will allow the plants to develop an adequate root system, increases over-wintering ability, and the plants are more resistant to being pulled out by grazing animals. Keep animals in paddocks or established pastures during the winter months and mud season, rather than on the newly seeded fields.

Following these production recommendations can help to increase the success of establishing pastures on your farm. For additional information or assistance, contact your regional field and forage crop or livestock agent. □

# Financial Survival Tips for Drought-Stricken NJ Farmers

*Dan Wunderlich, Agricultural Agent and Barbara O'Neill, Ph.D., Family & Consumer Sciences Educator, Rutgers Cooperative Extension of Sussex County*

For a farm family, the financial stress resulting from a drought is similar to a period of unemployment experienced by salaried workers. Your income is significantly reduced while household and farm expenses continue as before. The key to survival during this period is expense reduction, debt restructuring, and/or finding alternative sources of income. Below are some ideas to consider during this time of extreme financial stress:

- Contact your creditors and service providers (e.g., feed, fertilizer, machinery, utilities) ASAP and explain the situation. Don't wait for them to contact you. Explain the impact that the drought has had on your farm income and request a reduced monthly payment or a reduced interest rate. Get all payment reductions in writing and write down the names of the people you speak to.
- Apply for all public benefits that you or your family may be eligible for (e.g., Food Stamps, WIC, reduced price school lunches, the NJ Kid Care health insurance program for children). These benefits aren't "charity." You've worked hard for years to pay the taxes that provide them.
- Closely track monthly spending and reduce or eliminate unnecessary expenses. Also consider ways to reduce fixed monthly payments (e.g., refinancing mortgage with a lower rate loan). Keep insurance policies, especially health insurance, in force if possible. Studies show that people under stress experience more accidents and require more medical attention than others. Uninsured medical expenses will only further worsen your financial situation.
- Consider alternative income sources. Perhaps your spouse can work outside the home or increase hours spent in paid employment. You, too, may be able to find a full- or part-time job, temporarily, or as a long-term career move. Other ways to increase income are to: sell assets (e.g., an extra car or farm land or equipment that is seldom used), borrow from a life insurance policy or retirement plan, request money that was loaned to others, charge adult children room and board, adjust income tax withholding and/or make smaller quarterly withholding payments in anticipation of a reduced income, and increase yields on existing savings (e.g., a 5% CD instead of a 2% passbook bank account).
- Determine spending priorities if you can't pay all your bills. Basic needs always come first: your house, utilities, food, and health insurance. After that, ask yourself which debts and expenses affect your farm and personal security the most. Also, which debts are secured with collateral and which are unsecured?
- Evaluate the bottom third of your herd (livestock producers) to justify the cost of replacement feeds. Production records are essential to determine the cost per cow or cost per cwt of product produced (e.g., meat or milk). If animal units are unable to generate enough cash flow for profit, you do not need to keep them as pets.
- Conduct a thorough risk assessment. Consider reducing the farming enterprise to a level that doesn't require large amounts of risk capital. Or diversify your farming activities. Produce crops that yield a higher profit margin and a good return on investment. Develop new marketing strategies and explore agri-tourism and/or direct marketing possibilities. Work out advance payments from processors and dealers to cover short-term cash flow problems.
- Consider contacting the Consumer Credit Counseling Service (call 1-800-388-CCCS for the office nearest you) for assistance with budgeting and debt repayment. CCCS has the ability to negotiate with creditors and restructure your personal debt load. A nominal counseling fee (generally about \$35) may be charged. There are also several national financial counseling agencies that operate via telephone and the Internet, including Money Management International ([www.mmintl.org](http://www.mmintl.org)), Debt Counselors of America ([www.dca.org](http://www.dca.org)), and Genus Credit Management ([www.genus.org](http://www.genus.org)).
- Contact Rutgers Cooperative Extension to access FINPACK, a comprehensive farm financial analysis system. This computer software program is available to financially distressed producers to assist with short-run survival and long term profitability. Information about obtaining a FINPACK analysis can be obtained from Dave Lee (609-769-0090), Salem County Agricultural Agent and program coordinator for the Garden State Agriculture Re-Engineering Initiative, and Dan Wunderlich (973-579-0985), Sussex County Agricultural Agent.
- Compare the total cost and affordability of various farm loan alternatives. For example, let's say you need \$100,000 to cover farm expenses (e.g., feed, seed, fertilizer, loan payments, etc.) through next year. If you took a 10%, unsecured personal or business loan for two years, the monthly payment would be \$4,614.50, for a total of \$110,748 repaid over 24 months. The government low-cost loan rate is 3.75% and loans can be repaid for up to seven years. With this

SEE FINANCES ON PAGE 5

*FINANCES FROM PAGE 4*

scenario, the monthly payment would be \$1,355.40 for 84 months or a total cost of \$113,853.60. That's \$3,105.60 more than the shorter 10% loan.

A better alternative may be to take the lower cost loan and prepay principal. That way, the monthly payment remains affordable, you reduce the cost of interest, and you decrease the term of the loan. According to calculations made with the mortgage amortization software program, *Banker's Secret*, a regular monthly principal prepayment of \$335 on the low-cost loan would eliminate 18 payments and save \$3,112.32 in interest, slightly more than the difference in costs between the two loan options described above. Yet, the payment is almost \$3,000 per month less than the shorter-term loan. If you have a "difficult month" financially and can't prepay, the lender only expects the \$1,355.40 due.

In summary, having outstanding bills and not enough money to pay them is a very frightening

experience. When you don't have enough money to pay what you owe, some difficult financial decisions (e.g., selling assets, seeking alternative employment) may be necessary. When a drought or any other reason reduces income, changes in spending must be made. The sooner that options to increase income and reduce spending are explored, the better.

Also, be sure to involve the entire family in discussions of how to make ends meet. Cooperation and support from everyone during this time of crisis will reduce family stress. It will also bring you together as you seek solutions to meet your financial challenges. And one final thought. Consider this quote from the FFA creed: "Less dependence on begging and more power in bargaining and a life abundant." The suggestions listed above are sound, proven management tools utilized daily in most businesses. Use these practices to pull through this disaster and show that no one should doubt the ability of American agriculture to recover and survive. □

## Weekly Weather Summary

*Keith Arnesen, Ph.D., Agricultural Meteorologist*

Temperatures averaged much above normal. Extremes were 95 degrees at Canoe Brook on the 30th and 47 degrees at Charlotteburg on the 30th. Weekly rainfall averaged 1.76 inches north, 2.01 inches central, and 1.46 inches south. The heaviest 24 hour total was 2.60 inches at Canoe Brook on the 25th to the 26th. Estimated soil moisture, in percent of field capacity, this past week averaged 83 percent north, 83 percent central and 71 percent south. Four inch soil temperatures averaged 69 degrees north, 72 degrees central and 73 degrees south.

The latest 6 to 10 day outlook for the period September 2nd to 6th is calling for temperatures to average above normal and precipitation to total near normal. The outlook for September is calling for temperatures and precipitation to both be near normal.

**Weather Summary for the Week Ending 8 am Monday 8/30/99**

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	1.82	15.53	-8.71	90	53	72.	5	2522	350	87
CANOE BROOK	3.27	18.00	-7.40	95	50	73.	5	2835	647	92
CHARLOTTEBURG	1.40	17.62	-8.04	87	47	68.	3	2145	409	83
FLEMINGTON	1.98	13.96	-10.50	87	52	73.	4	2627	382	89
LONG VALLEY	.33	13.94	-12.53	83	54	71.	5	2281	343	65
LONG BRANCH	1.36	16.97	-7.24	88	60	74.	4	2575	263	71
NEW BRUNSWICK	2.70	18.04	-6.06	89	56	74.	2	2773	282	91
PEMBERTON	2.29	20.33	-4.20	90	55	75.	5	2854	417	77
TOMS RIVER	1.78	11.54	-13.18	89	57	74.	4	2573	277	84
TRENTON	1.94	20.31	-2.56	87	52	72.	1	2553	-41	81
CAPE MAY COURT HOUSE	.81	12.11	-9.25	88	56	76.	4	2763	481	41
DOWNSTOWN	1.29	20.10	-2.50	87	55	75.	4	2774	175	86
HAMMONTON	2.90	19.95	-3.60	89	54	74.	3	2764	183	84
POMONA	.98	17.15	-4.65	87	61	75.	5	2736	329	56
SEABROOK	1.27	20.01	-1.58	87	59	75.	4	2931	317	80
ATLANTIC CITY MARINA	1.52	16.06	-4.84	88	57	77.	6	2784	441	72
WOODSTOWN	3.62	22.93	-0.30	91	54	76	NA	2941	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW Last Week				234	(Ending 8/23/99)		This Week	243	(Ending 8/30/99)	

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## **PLANT & PEST ADVISORY**

### **FIELD CROPS/LIVESTOCK EDITION**

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