

PLANT & PEST ADVISORY

FIELD CROPS/LIVESTOCK EDITION \$1.50

JULY 10, 1997



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Alfalfa Management and Drought

Daniel Kluchinski, Mercer County Agricultural Agent

Continued dry weather has brought a rash of phone calls related to the effect of our month long "drought" on field and forage crops including alfalfa. On sandy or shallow soils, some of the stressed alfalfa crop is "crunchy" when walked upon. Even with some rain on July 9, concern about the long term effect of the dry spell on the current crop is understandable. Cutting management, insect control and fertilization are all important considerations during the growing season, no matter what the weather. Production practices may only need to change if dry conditions continue into August.

Alfalfa is native to the Mediterranean region, and therefore has the capability of going dormant and then reviving when precipitation occurs. Additional stress placed on the crop such as insect damage and low fertility can increase the chances for stand loss. If soil tests indicate fertility levels are low, top dressing of fertilizer should take place once rainfall occurs and the plants return to production. If dry conditions continue and the crop goes dormant, hold fertilization. Insect feeding can add stress and therefore should be monitored and controlled. Leafhopper populations continue to climb across the state and this pest should be monitored. Purchase a sweep net, monitor the fields once a week, and keep abreast of pest populations. Know your populations and the threshold for taking control action. Consult with your field crop agent or the [1997 Field Crop Pest Management Recommendations](#) for suggested controls and assistance.

Continue cutting at bloom stage if growth continues. Be aware that the crop will mature early during drought conditions. Removal of the growth will not injure the plant and in fact will be beneficial. When favorable conditions return, regrowth can occur. Spring plantings should be at the bloom stage by early July. These should be cut when the stand reaches early to mid bloom. If dry conditions continue, will the new stand survive? If the plants are still light to dark green, upright, and the root is still pliable, the plants are still alive and a rain might revive them. If the root is dry and brittle, the plants are probably dead.

Adapted from "Alfalfa Management and Drought", Sid Bosworth. July 1988. Penn State University PennPages, Document 083011035. □

Weekly Field Crops Pest Summary

7/10/97

Joe Mahar, Field Crops IPM Agent;
Dave Lee, Salem County Ag Agent;
Sue Jones, Field Crops IPM Pro-
gram Associate; Miles Huffaker,
Salem County Program Associate

◆ Alfalfa

Potato leafhopper populations remain high across the state. First generation nymphs (immatures) are becoming increasingly abundant. Even though some areas had rain last evening, dry conditions will probably persist. As a result, leafhopper thresholds should be lowered at least 25% until the drought conditions are over.

Alfalfa growth in some fields is stunted due to dry conditions and new seedlings are especially stressed.

◆ Corn

Moisture stress is evident in corn fields across the state and worst in poor, compacted soils.

European corn borer populations are light.

Tom Morgart of Resource Conservation and Development, reports that he has seen adult western corn rootworms in Somerset County. The number of adults will be increasing over the next few weeks, and rootworm sampling should begin soon.

◆ Soybeans

Soybeans appear to be growing slowly as a result of the weather. Manganese deficiency symptoms continue to be evident. There has been light feeding damage but otherwise no significant pest problems were observed.

There is concern about potato leafhoppers on soybeans. In the past ten years we have not seen a problem with leafhoppers on beans, however, with the current abundant populations it is possible we might see hopperburn in beans.

◆ Wheat

Wheat harvest is underway so there will not be any more reports on pest conditions for this season. □

Field Crops Weed Control

Bradley A. Majek, Ph.D., Weed Science

✓ Corn: Minimize Banvel/Clarity and 2,4-D Injury to Corn

Banvel/Clarity (field corn only) or 2,4-D are very effective and economical postemergence herbicides for **broadleaf** weeds in corn. Apply before corn exceeds 8 inches in height to minimize the risk of crop injury, or use drop nozzles to avoid spraying herbicides into the whorl of the corn, or wetting corn foliage. Delay cultivation for 8-10 days after application to avoid temporary brittleness sometimes caused by these herbicides. Corn sensitivity is increased by plentiful soil moisture, warm temperatures, and high humidity during periods of cloudy weather. Use the minimum rate or delay application when conditions that increase the risk of crop injury prevail.

Caution: Banvel or 2,4-D can drift as fine spray particles or as a vapor and harm sensitive vegetable and ornamental crops in adjacent fields. Use *only* amine formulations to minimize the tendency of these herbicides to drift. Do *not* apply during periods of high wind to avoid spray drift. Do *not* apply when the temperature or the humidity is high and the air is dead calm to reduce the risk of vapor drift. Consult the [Commercial Field Crops/Vegetable Production Recommendations](#) for rates and additional information.

✓ **Soybean:** Raptor 1SC herbicide has received a label for use to control most **broadleaf** weeds and certain **annual grasses** postemergence in soybeans. Apply 4-5 fluid ounces of Raptor 1SC per acre. Always add crop oil concentrate at the rate of 1.5-2 pints per acre or nonionic surfactant at the rate of 1 quart per 100 gallons of spray solution. **Morninglory** species, **common ragweed**, and **perennials** may only be suppressed when the lower rate or Raptor is used. Use of the 5 fluid ounces rate may improve control of certain annual **morninglory** species and **common ragweed**, but **pitted morninglory**, **perennial bindweed**, and **Canada thistle** may only be suppressed.

Raptor 1SC carryover may affect subsequent crops. Soybeans may be planted any time after application. Wheat can be planted 3 months and barley 4 months after Raptor is used. Sugar beets, red beets (and spinach and Swiss chard) are very sensitive to Raptor 1SC. Delay planting these crops for 18 months if the soil pH is above 6.2, or for 26 months if the soil pH is below 6.2. Consult the label for additional information.

✓ **Wheat:** Perennial weeds, including **Canada thistle**, **milkweed**, **hemp dogbane**, **horsenettle** and others reduce yield and interfere with harvest. Roundup can effectively control these **annual weeds**, be treated when they are actively growing, and have a healthy canopy of foliage to intercept the spray at the time of year when the herbicide will be moved down into the roots.

Many **perennial broadleaf** weeds are most effectively treated with Roundup when they are in the bud to green fruit stage of growth. This occurs in late June or early July for many troublesome weeds, but farmers have difficulty fitting the needed period of weed growth and a Roundup application into the crop rotation.

Roundup can be applied to wheat by ground sprayer or by air as a harvest aid *before harvest* to control most annual weeds and to suppress or control perennial weeds. Follow specific application instructions found in the "Weeds Controlled" and "Application Equipment and Techniques" sections of the Roundup label. Apply after the hard-dough growth stage (30% moisture or less) and at least seven days before harvest. Do not exceed 1 quart per acre for preharvest applications to wheat. □

Weekly Weather Summary

Keith Arnesen, Agricultural Meteorologist

Temperatures averaged slightly above normal. Extremes were 95 degrees at Toms River on the 6th and 48 degrees at Newton on the 6th. Weekly rainfall averaged 0.23 inches North, 0.13 inches Central, and 0.11 inches South. The heaviest 24 hour total was 0.53 inches at Belvidere on the 6th to 7th. Estimated soil moisture, in percent of field capacity, this past week averaged 59 percent North, 39 percent Central and 33 percent South. Four inch soil temperatures averaged 71 degrees North, 73 degrees Central and 74 degrees South.

Weather Summary for the Week Ending 8 a.m. Monday 7/ 7/97

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	.65	12.15	-4.08	89	51	71.	0	893	-102	64
CANOE BROOK	.08	12.33	-5.01	90	54	74.	2	1092	103	55
CHARLOTTEBURG	.29	15.10	-2.44	87	50	70.	1	829	44	52
FLEMINGTON	.04	13.34	-3.29	91	57	73.	1	913	-109	54
LONG VALLEY	.14	14.39	-3.41	85	52	70.	1	811	-41	51
NEWTON	.19	12.50	-3.38	87	48	69.	-1	714	-159	58
FREEHOLD	MISSING									
LONG BRANCH	.00	14.12	-2.14	88	57	73.	0	1028	-19	24
NEW BRUNSWICK	.10	16.19	.23	89	53	73.	-1	1051	-141	60
PEMBERTON	.46	14.22	-1.67	90	53	74.	1	1233	77	33
TOMS RIVER	.00	13.05	-3.25	95	55	74.	0	1053	1	21
TRENTON	.10	16.05	1.06	87	52	73.	-2	1063	-179	30
CAPE MAY COURT HOUSE	.07	13.90	-.46	90	60	74.	0	1096	-35	40
DOWNSTOWN	.33	12.81	-1.97	89	56	74.	0	1118	-140	33
GLASSBORO	.14	15.28	-.62	91	60	77.	3	1227	-10	28
HAMMONTON	.12	13.44	-2.16	91	55	75.	1	1108	-122	19
POMONA	.03	14.42	.31	91	56	75.	2	1108	-25	21
SEABROOK	.04	13.68	-.57	92	59	76.	2	1210	-55	30
ATLANTIC CITY MARINA	.02	10.44	-3.06	88	66	75.	3	1100	41	17
WOODSTOWN	.12	13.58	-2.38	94	54	76	NA	1234	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week 257 (Ending 06/30/97)										
This Week 242 (Ending 07/07/97)										

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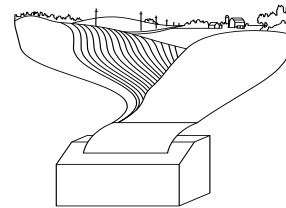
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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact Rutgers Cooperative Extension in your County.

Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances a compound may be sold under different trade names, which may vary as to label clearances.