



## Cooperative Extension in the Capital Region Fact Sheet

### Water Needs for Poultry – Are you Prepared?

The Pennsylvania Department of Environmental Protection has reminded us that 62 of the commonwealths 67 counties are in drought watches and warnings. Sixty-three water systems are on mandatory or voluntary water use restrictions.

Due to the low rainfall and snowfall this past season, coupled with the low groundwater recharge rates because of urban paving/groundcovers, all livestock owners should be aware of the need for a water supply monitoring plan. This plan should address both the quantity and quality of water for birds of all possible ages kept at one facility.

The question needs to be asked: If your current well / water supply runs dry, what do you do?

Water audits are recommended for your location. This could incorporate the use of water meters to determine water consumption rates for your particular location and building density per day. This should include water used for cooling and processing if you use the same potable water supply as that of the birds. This will help formulate a total daily water budget that will be filled by the water supplies for the facility.

Water Consumption in Poultry<sup>†</sup> (US gal / day / 1000 birds)

Age (weeks)	Meat type Chickens	Egg type Chickens	Turkeys
1	6	5	10
2	12	10	20
3	17	12	30
4	34	17	40
5	38	22	50
6	47	25	60
7	56	28	75
8	64	30	95
9	84	35	115
10	90	38	125
12	125	40	150
15	52 <sup>‡</sup>	42	160
20+	60 <sup>‡</sup>	45	170

<sup>†</sup>Feed Management, Jan 1981; NRC Nutrient Requirements of Poultry, 1994

<sup>‡</sup>Breeder Females

Consumption at normal ambient temperatures.

These water consumption rates will vary due according to the rate of feed consumption and feed type, along with ambient temperature and stress levels.

(over)

Supply resources should be identified for planned supply shortages, and for unexpected outages. In all species, a loss of one day's water will cause a financially significant loss in production. There are several contingencies that can be formulated, including having a large water inlet as seen with high rise office buildings for fire prevention in order to hook a water tanker truck with booster pump to supply the house in the event of an outage. With slow wells, a cistern system could be employed in order to hold the days supply with a full recharge during the night. These tanks should be enclosed or partially buried in order to maintain quality and reduce evaporation. Cross-plumbed supplies from differing formations could also be employed to pull enough water to meet demand, but should be tested periodically to prevent well over-draft.

Water quality should be examined weekly. Cloudy water (aerated) or high amounts of suspended materials in water supplies should be investigated. Water should be tested for biologic loads periodically especially during the summer months. Flush water lines periodically to reduce contamination.

Drilling for new wells should include a proper casing and sealing of the well to prevent contamination from surface water runoff. Drillers should be state licensed, and should employ the latest technologies for drilling.

Processing facilities should consider using "grey" water for purposes not requiring potable water, along with auto-off and low flow devices whenever possible. This helps reduce total daily water consumption loads.

For further information:

Pennsylvania Department of Environmental Protection

[www.dep.state.pa.us](http://www.dep.state.pa.us)

- Gregory P. Martin, Ph.D., PAS

Extension Poultry Agent – Capital Region

Lancaster County Extension Office

1383 Arcadia Road, Room 1

Lancaster, PA 17601-3184

[gpm10@psu.edu](mailto:gpm10@psu.edu)

717 394-6851

[www.personal.psu.edu/gpm10/](http://www.personal.psu.edu/gpm10/)

See also: [poultry.cas.psu.edu/](http://poultry.cas.psu.edu/)

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