Menu of Adaptation Strategies and Approaches

*Developed for Agricultural Systems*

**Strategy 1: Sustain fundamental functions of soil and water.**
- **Approach 1.1:** Maintain and improve soil health.
- **Approach 1.2:** Protect water quality.
- **Approach 1.3:** Match practices to water supply and demand.

**Strategy 2: Reduce existing stressors of crops and livestock.**
- **Approach 2.1:** Reduce the impacts of pests and pathogens on crops.
- **Approach 2.2:** Reduce competition from weedy and invasive species.
- **Approach 2.3:** Maintain livestock health and performance.

**Strategy 3: Reduce risks from warmer and drier conditions.**
- **Approach 3.1:** Adjust the timing or location of on-farm activities.
- **Approach 3.2:** Manage crops to cope with warmer and drier conditions.
- **Approach 3.3:** Manage livestock to cope with warmer and drier conditions.

**Strategy 4: Reduce the risk and long-term impacts of extreme weather.**
- **Approach 4.1:** Reduce peak flow, runoff velocity, and soil erosion.
- **Approach 4.2:** Reduce severity or extent of water-saturated soil and flood damage.
- **Approach 4.3:** Reduce severity or extent of wind damage to soils and crops.

**Strategy 5: Manage farms and fields as part of a larger landscape.**
- **Approach 5.1:** Maintain or restore natural ecosystems.
- **Approach 5.2:** Promote biological diversity across the landscape.
- **Approach 5.3:** Enhance landscape connectivity.

**Strategy 6: Alter management to accommodate expected future conditions.**
- **Approach 6.1:** Diversify crop or livestock species, varieties or breeds, or products.
- **Approach 6.2:** Diversify existing systems with new combinations of varieties or breeds.
- **Approach 6.3:** Switch to commodities expected to be better suited to future conditions.

**Strategy 7: Alter agricultural systems or lands to new climate conditions.**
- **Approach 7.1:** Minimize potential impacts following disturbance.
- **Approach 7.2:** Realign severely altered systems toward future conditions.
- **Approach 7.3:** Alter lands in agricultural production.

**Strategy 8: Alter infrastructure to match new and expected conditions.**
- **Approach 8.1:** Expand or improve water systems to match water demand and supply.
- **Approach 8.2:** Use structures to increase environmental control for plant crops.
- **Approach 8.3:** Improve or develop structures to reduce animal heat stress.
- **Approach 8.4:** Match infrastructure and equipment to new and expected conditions.

Find the full publication at: [forestadaptation.org/ag-menu](http://forestadaptation.org/ag-menu)

To be used in the Adaptation Workbook for Agriculture decision-support framework – Janowiak et al, 2016. Adaptation Resources for Agriculture: Responding to Climate Variability and Change in the Midwest and Northeast. Technical Bulletin 1944. USDA Climate Hubs. ARS. NRCS, USFS.