THE VALUE of Nature

massaudubon.org/valueofnature

#4 OF 5



Grasslands & Farmlands

In Massachusetts, grasslands are created and maintained by natural or human-caused disturbances. Grasslands provide crucial habitat for wildlife. including pollinators like bees, butterflies and birds. Farms and gardens support local food production.

ECONOMIC & HEALTH

Community Gardens

help increase community cohesion, connecting people with nature and accessible, healthy food.1 Additional benefits include their important role in stormwater management.2



POLLINATORS CONTRIBUTE

TO THE U.S. ECONOMY³



OF OUR **AGRICULTURAL COMMODITIES IN MASSACHUSETTS RELY ON THE** RICH DIVERSITY OF POLLINATORS **FOR CROP** POLLINATION.6

FARMING FOR THE FUTURE



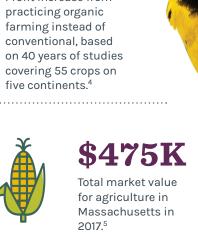
Regenerative agriculture is a crucial piece of the sustainability puzzle. While conventional farming employs large

amounts of pesticides, fertilizers, energy, and water, regenerative agriculture centers on soil health and productivity, minimizing environmental impact.⁷ This practice often goes hand in hand with "carbon farming" to improve conversion of atmospheric CO2 to plant material and soil organic matter.8

Visit our website to read about how Mass Audubon's Drumlin Farm is employing regenerative methods.

22-35%

Profit increase from practicing organic covering 55 crops on





12M GALLONS Estimated amount of stormwater retained annually by raised beds alone in New York City's community gardens.9

CARBON CAPTURE & STORAGE

Reduction in equivalent CO2 released into the atmosphere by composting and

using one ton of farm food scraps and yard waste vs. landfilling the same amount.10

Ecosystem Services: Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing. : climate change.

Climate Resilience: The ability of a natural or human community to prepare for and respond to the impacts of







Grasslands & Farmlands

CLIMATE RESILIENCE

Climate change threatens our ability to produce food, and food insecurity is already present in Massachusetts.11

\$2.4B POTENTIAL SAVINGS/YEAR

in medical treatment costs by addressing food insecurity in Massachusetts.12

Over \$2M Benefit to

participants in Massachusetts' Healthy Incentives Program (HIP) in the program's first seven months, demonstrating demand for healthy, local food. HIP makes buying fruits and vegetables from farmers markets and other qualified local vendors more

cost-effective for eligible low-income residents.13



53 species of the GREATEST CONSERVATION NEED

make their home in Massachusetts' grassland habitats, including the eastern meadowlark and bobolinks.14 Maintaining agricultural lands benefits several species that have declined significantly in New England over the past 50 years.15

A NEW ENGLAND FOOD VISION, FOR 50 BY '60

Experts from universities around New England have created a plan to grow 50% of our food locally by 2060. The 2 million acres of farmland in New England provide only 12% of our food, while 10 to 15% of households report food insecurity. New England has the capacity to responsibly expand its farmland to 6 million acres while reducing our farm footprint and leaving 70% of the region forested.16

GREEN CITY GROWERS

Green City Growers, an organization that converts unused spaces into urban farms, has grown more than 175,000 pounds of organic produce over less than 2 acres. Based on these production levels, it is estimated that just 1.6% of Boston's 57,363 acres of land would be needed to meet the needs of at-risk Bostonians.¹⁷

RECREATION & TOURISM

Participants in agri-tourism (a growing trend) and wildlife observers interested in grassland species spend money on classes and programs in local communities.

visitors to 611 acres of grasslands managed by Mass Audubon.¹⁸

25K people visit and participate in educational programs annually at Mass Audubon's Drumlin Farm.¹⁹

Threats

Climate change and development are two of the biggest threats facing grasslands and farmland.



2.9°F RISE IN TEMP since 1895



11" SEA LEVEL RISE since 1922, as measured in Boston Harbor



55% STRONGER STORMS

Grasslands and agricultural fields are experiencing climate change impacts like summer drought, freeze damage to early buds, and faster spread of invasive species.

DEVELOPMENT



Grasslands and farmlands are often prime targets for development, since the land is open, relatively flat, and has soils that are easily manipulated.

See our Losing Ground report and community planning resources for ways to reduce development impacts.

These fact sheets were produced as part of the Integrating Ecosystem Services **Functions and Values into** Land-Use Decision Making in the Narragansett Bay Watershed project.

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CLIMATE CHANGE

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