

# ***Forages are the biological infrastructure of Agriculture***

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Agriculture Canada has cut forage research by 50% but continues to promote sustainable agriculture as a priority. However, sustainable agriculture cannot be separated from the most pronounced benefit of growing forages, soil conservation. Partnerships with industry are being touted as a way to fill the gap but such ventures are usually focused with precise, short-term, monetary objectives. Forages consists of diverse species, with diverse adaptations and diverse applications. Frequently forages are not marketed directly. However, new opportunities, such as using forages for biofuels, or fibre crops, should also be researched and industry could have a role to play in this specific, previously poorly-funded area.

Governments should ensure that forage research in all areas of Canada is fully funded because forages are the biological infrastructure of agriculture. The public investment in roads maintains the conditions for trade and business. Similarly, public investment in forage research will maintain the fundamental resource of agriculture, soil. In particular, government funding of forage plant breeding programs is essential to maintain because private industry shows little interest in this area as it is focussing efforts on annually seeded crops. If forage breeding programs are abandoned eventually forage crops will slowly lose their competitive advantage in livestock feeding programs. The result will be more marginal farming areas suited to forage crops will go out of production and more soil degradation will result. Annual soils loss due to erosion can be reduced almost to zero with continuous forage cover, much less than under continuous annual row cropping systems. As well, cover cropping with a legume such as clover, reduces: 1) the need for N fertilizer which is increasing in cost and is increasingly becoming a pollutant and expensive, 2) the amount of cultivation to establish a crop, 3) the resistance of row crops to root penetration, and 4) the amount of herbicide required to control weeds. All of these would contribute to a more sustainable agriculture with less potential for pollution of watersheds

and ground water. In the long term, economic yields could be higher than under conventional methods of continuing soil degradation. Future generations will ask us why we didn't invest in their biological infrastructure.

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