Riparian Zones and Filter Strips in Agricultural Operations (I)

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RIPARIAN ZONES & FILTER STRIPS IN AGRICULTURAL OPERATIONS
1
NAL Call. No.: aSD11.A42
Above-ground biomass quantities and livestock production at big sacaton riparian areas in southeastern Arizona.
Cox, J.R.; Morton, H.L.
Fort Collins, Colo. : The Station; 1985.

Language:  English
Descriptors: Arizona; Sporobolus; Livestock; Stocking rate; Grazing effects; Biomass accumulation; Seasons; Mowing; Burning

2
NAL Call. No.: S451.M9M9
Altering cattle behavior through grazing management.
Davis, K.C.; Marlow, C.B.
Bozeman, Mont. : The Station; 1990.
Montana agresearch - Montana Agricultural Experiment Station, Montana University v. 7 (1): p. 11-14; 1990. Includes references.

Language:  English
Descriptors: Montana; Cows; Calves; Grazing systems; Grazing behavior; Riparian vegetation

3
NAL Call. No.: TD223.P39
Antidesertification of riparian zones and control of nonpoint source pollution.
Skinner, Q.D.; Dodd, J.L.; Rodgers, J.D.; Smith, M.A.

Language:  English
Descriptors: Wyoming; Riparian vegetation; Streams; Desertification; Reclamation; Water pollution; Pollution by agriculture; Control

4
NAL Call. No.: FICHE S-72
Applicability of creams in filter strip design.
Flanagan, D.C.; Neibling, W.H.; Foster, G.R.; Burt, J.P.

Language: English

Descriptors: Models; Mathematics; Erosion; Groundwater pollution; Fields; Grass strips; Filters; Pollution; Control methods

Myers, T.J.; Swanson, S.
Bethesda, Md. : American Water Resources Association; 1991

Language: English

Descriptors: Nevada; Streams; Morphology; Riparian vegetation; Livestock; Grazing effects; Freshwater fishes; Aquatic environment; Habitats; Indexes; Stability; Watershed management

Abstract: The quality of stream habitat varies for a variety of natural and anthropogenic reasons not identified by a condition index. However, many people use condition indices to indicate management needs or even direction. To better sort natural from livestock influences, stream types and levels of ungulate bank damage were regulated to estimates of aquatic habitat condition index and stream width parameters in a large existing stream inventory data base. Pool/riffle ratio, pool structure, stream bottom materials, soil stability, and vegetation type varied significantly with stream type. Pool/riffle ratio, soil and vegetation stability varied significantly with ungulate bank damage level. Soil and vegetation stability were highly cross-correlated. Riparian area width did not vary significantly with either stream type or ungulate bank damage. Variation among stream types indicates that riparian management and monitoring should be stream type and reach specific.

Killingbeck, K.T.

Autumnal resorption and accretion of trace metals in gallery forest trees.
Tempe, Ariz : Ecological Society of America; 1985 Feb.
Ecology : a publication of the Ecological Society of America

Language: English

Descriptors: Kansas; Prairies; Riparian forests; Forest trees;
Leaf analysis; Copper; Iron; Zinc; Manganese; Nutrient
recovery; Senescence; Resorption; Nutrient cycles

Beavers and riparian ecosystems.
Clements, C.

Language: English

Descriptors: Western states of U.S.A.; Canada; Riparian
grasslands; Ecosystems; Castor canadensis; Castor fiber

The benefits of well-managed stream corridors.
Craven, S.; Jackson, G.; Swenson, W.; Webendorfer, B.
Publication - University of Wisconsin, Cooperative Extension

Language: English

Descriptors: Wisconsin; Riparian vegetation; Erosion;
Riverbank protection; Runoff; Water pollution; Habitat
selection

Big sacaton riparian grassland management: seasonal grazing
effects on plant and animal production.
Cox, J.R.; Gilien, R.L.; Ruyle, G.B.
Includes references.

Language: English

Descriptors: Sporobolus; Forage; Steers; Brahman; Riparian
vegetation; Grassland management; Grazing effects; Grazing
intensity; Natural regeneration; Beef production; Weight gain;
Climatic factors; Seasonal growth

Abstract: F1 Brahman steers annually grazed the same big
sacaton (Sporobolus wrightii Monro) pastures in either spring
(May 1-June 12), summer (July 1-August 12), or fall (September 1-October 12) for three years. Green forage accumulated gradually in spring, accumulated rapidly in summer and declined gradually in fall, but mean daily steer gains averaged 1.5, 0.8, and 0.5 lb/animal on spring, summer, and fall grazed pastures, respectively. Spring gains were superior because green forage quality was greatest when plants initiated growth in spring. Summer gains were directly affected by green forage quantity, and green forage quantity was dependent on highly variable summer rainfall amounts. Fall gains were consistently low because forage quality declines rapidly in fall when green forage transfers to dead forage. In the three years, more than 80% of the green forage disappeared during spring grazing but pastures recovered in subsequent summer growing seasons. If the land manager wishes to maximize animal production without damaging the renewable natural resource (plant production), it is recommended to graze big sacaton grasslands in spring, avoid these riparian grasslands in dry summers, and discontinue fall grazing.

10
NAL Call. No.: S539.5.A77
Big sacaton (Sporobolus wrightii) riparian grassland management: annual winter burning, annual winter mowing, and spring--summer grazing. Cox, J.R.; Morton, H.L.
Language: English
Descriptors: Sporobolus; Grassland management; Burning; Mowing; Grazing; Winter; Spring

11
NAL Call. No.: SF85.A1R32
Biological importance of streambank stability.
Bohn, C.
Denver, Colo.: Society for Range Management; 1986 Apr.
Language: English
Descriptors: Oregon; Streams; Banks; Stream erosion; Stability; Channels; Sediments; Nutrients; Aquatic environment; Vegetation

12
NAL Call. No.: A99.9 F764U
Bird and small mammal populations in a grazed and ungrazed riparian habitat in Idaho.
Medin, D.E.; Clary, W.P.
Ogden, Utah: The Station; 1990 Jul.

Language: English

Descriptors: Idaho; Wildlife; Birds; Mammals; Habitats; Riparian vegetation; Grazing effects; Rangelands

13
NAL Call. No.: A99.9 P764U
Breeding bird populations in a grazed and ungrazed riparian habitat in Nevada. Medin, D.E.; Clary, W.P.
Ogden, Utah : The Station; 1991 Apr.

Language: English

Descriptors: Birds; Breeding; Riparian forests; Populus tremuloides; Salix; Habitats; Grazing effects

14
NAL Call. No.: SF85.A1R32
Cattle and fish on the Henry's Fork.
Platts, W.S.; Magstaff, F.J.; Chaney, E.

Language: English

Descriptors: Idaho; Cattle; Rainbow trout; Rivers; Angling; Riparian grasslands; Grazing

15
NAL Call. No.: 60.18 J82
Cattle feeding and resting patterns in a foothills riparian zone. Marlow, C.B.; Pogacnik, T.M.

Language: English

Descriptors: Montana; Upland areas; Streams; Cattle; Feeding behavior; Animal behavior; Rest; Riparian vegetation; Grazing effects; Stocking rate; Seasonal behavior

16
NAL Call. No.: 60.18 J82
Cattle use of riparian meadows in the blue mountains of

Language: English

Descriptors: Oregon; Cattle; Grazing; Riparian vegetation; Temperatures

17
NAL Call. No.: HC79.E5E5

Language: English

Descriptors: Idaho; Habitats; Riparian vegetation; Erosion; Pollution; Information systems; Mapping; Watersheds; Farmland

18
NAL Call. No.: 56.8 J822

Language: English

Descriptors: Riparian vegetation; Rangelands; Land classification; Ecosystems; Range management; Resource conservation

19
NAL Call. No.: QK149.F269 1988

Language: English; English

Descriptors: Riparian flora; California; Identification

20
NAL Call. No.: S622.2.C66
Community participation in soil and water conservation. Benvenuti, D.N.

Language: English

Descriptors: Brazil; Soil and water conservation; Settlement; Gully control; Terracing; Sloping sites; Riparian forests; Community involvement; Farm surveys; Farm surveys; Projects; Quality controls; Coordination; Technical aid; Evaluation; Integration

21
NAL Call. No.: QH541.5.T7J68
Comparative effects of Acacia albida and Kigelia africana trees on soil characteristics in Zambezi riverine woodlands. Dunham, K.M.

Language: English

Descriptors: Zimbabwe; Acacia albida; Kigelia africana; Soil fertility; Nitrogen; Carbon; Phosphorus; Potassium; Nutrient availability; Nutrient content; Mineral content; Nitrogen content; Spatial variation; Soil acidity; Woodland soils; Soil organic matter; Riparian forests; Forest litter; Leaves

22
NAL Call. No.: 56.9 SO3
Comparison of denitrification in two riparian soils. Ambus, P.; Lowrance, R.

Language: English

Descriptors: Georgia; Coastal plain soils; Riparian forests; Soil fertility; Denitrification; Sandy soils; Soil organic matter; Soil depth; Soil water content; Soil amendments; Chloramphenicol; Glucose; Nitrates; Nitrous oxide; Pinus elliottii; Liriodendron tulipifera; Nyssa sylvatica; Nitrate nitrogen; Ammonium nitrogen

Abstract: The factors controlling NO3 removal in riparian buffer systems are poorly understood. We measured denitrification rates for two Coastal Plain, forested riparian zone soils: Kinston fine loamy sand (fine-loamy, siliceous, acid, thermic Typic Fluvaquent) and Alapaha loamy sand (loamy,
siliceous, thermic Arenic Plinthic Paleaquult). Kinston soils are more poorly drained and have higher organic matter than Alapaha soils. Surface soil and shallow aquifer samples were treated with solutions that contained chloramphenicol with either distilled water, NO3-N, glucose-C, or NO3, plus glucose. Denitrification potentials (N2O production in the presence of acetylene) were significantly higher in Kinston soil for both depths. Surface samples from both soils showed significant responses to NO3 additions but no response to C additions without NO3. Subsurface samples, taken from the top of the aquifer, showed no significant response to either NO3 or C treatments for either soil. Both soils showed a high degree of stratification within the top 10 cm, with 88 and 68% of denitrification potential in the top 2 cm for Alapaha and Kinston soils, respectively. Denitrification rates in cores were much lower than in slurries but rates in cores with NO3 or NO3-plus-glucose additions were significantly higher than unamended or C-amended cores for the Kinston soil. Although both soils respond to NO3 additions, Kinston soils are better able to reduce incoming NO3. These results indicate that denitrification in the shallow aquifer is a more important removal mechanism at the Kinston site than at the Alapaha site.

23
NAL Call. No.: aSD11.A42 A
comparison of riparian area ground data with large scale airphoto interpretation.
Cuplin, P.; Platts, W.S.; Casey, O.; Masinton, R.
Fort Collins, Colo. : The Station; 1985.
Language: English
Descriptors: Riparian vegetation; Aerial photography; Land resources; Grazing effects

24
NAL Call. No.: QH541.5.R3P3 1984
Compatibility of livestock grazing strategies with riparian-stream systems. Platts, W.S.
Corvallis, Or. : Oregon State University; 1984.
Language: English
Descriptors: Rangelands; Streams; Livestock; Riparian
vegetation; Range management; Vegetation management; Grazing systems; Grazing effects

25
NAL Call. No.: 412.9 N814
Concepts in stream riparian rehabilitation.
Van Haveren, B.P.; Jackson, W.L.

Language:  English
Descriptors: Western states of U.S.A.; Reclamation; Revegetation; Riparian vegetation; River bank protection; Streams

26
NAL Call. No.: S622.2.C66
Conservation of cropland on steep slopes in eastern Africa.
Thomas, D.B.

Language:  English
Descriptors: East Africa; Upland areas; Steepland soils; Sloping sites; Land resources; Perennial cropping; Terracing; Grass strips; Soil conservation

27
NAL Call. No.: S622.2.C66
Conservation practices and runoff water disposal on steep lands.
Hudson, N.W.

Language:  English
Descriptors: Soil and water conservation; Steepland soils; Sloping sites; Runoff control; Terracing; Grass strips; Case studies
Conserving the range resource today: summary.

Swenson, R.D.

Language: English

Descriptors: U.S.A.; Range management; Ecosystems; Resource conservation; Range pastures; Riparian vegetation

Controlling riparian zone damage with little forage loss.

Marlow, C.B.
Bozeman: The Station; 1985.
Montana agresearch - Montana Agricultural Experiment Station, Montana University v. 2 (3): p. 7. ill; 1985. Includes references.

Language: English

Descriptors: Montana; Range pastures; Beef cows; Riparian vegetation; Trampling; Pasture management; Grazing; Water conservation

Cool, clear water?

Williamson, L.L.

Language: English

Descriptors: Water resource management; Water composition and quality; Resource conservation; Riparian vegetation; Grazing effects; Rangelands; Erosion; Range management; Private sector; Wildlife; Habitat destruction

Crop water use studies.

Pochop, L.; Burman, R.; Kerr, G.
Laramie, Wyo.: The Center; 1986.

Language: English

Descriptors: Wyoming; Water use; Mountain grasslands; Meadows; Riparian vegetation; Evapotranspiration; Water supplies; Irrigation

32
NAL Call. No.: QH105.C2C36
Current condition of riparian resources in the Central Valley of California. Katibah, E.F.; Dummer, K.J.; Nedeff, N.E.

Language: English

Descriptors: California; Riparian vegetation; Grazing effects; Land use; Water resource management; Aerial photography

33
NAL Call. No.: 60.18 J82
Declining forage availability effects on utilization and community selection by cattle.
Smith, M.A.; Rodgers, J.D.; Dodd, J.L.; Skinner, Q.D.

Language: English

Descriptors: Wyoming; Populus deltoides; Cattle; Upland areas; Streams; Seasonal fluctuations; Habitat selection; Grazing behavior; Plant communities; Forage; Crop quality; Crude protein; Protein content; Dry matter; Riparian vegetation; Stocking rate

Abstract: Land managers of salt desert shrub and sagebrush steppe vegetation have concerns regarding appropriate stocking rates in summer for ephemeral stream riparian zones because of elevated levels of use on woody vegetation. We determined utilization levels of forage species over time as a fixed animal density decreased available forage as a means of approximating the stocking rate suitable for an area and identifying plant species for monitoring. Trend in abundance of important plant species will ultimately determine appropriate stocking rate in a particular management situation. Forage utilization by cattle during mid-summer for 2 successive years was measured weekly for 3 weeks in streamside (channel and floodplain) and adjacent upland (terrace and saline upland) vegetation communities along the ephemeral stream. Measures were also made of crude protein and
dry matter content of plant species. Plant communities used by cattle were also recorded. Utilization of streamside and terrace vegetation declined markedly over the 3 weeks, while utilization of forage in saline uplands was lower than in other areas and did not decline over weeks of study. More cattle selected streamside and terrace areas with the most succulent forages than saline uplands with less succulent forages. Woody plants in channel areas, cottonwood (Populus deltoides Bartr. ex Marsh.) particularly, were higher in protein, more succulent, and more severely grazed than other species. Management of cottonwood probably limits the stocking rate used in these communities. Declines in weekly utilization of forages after the first week indicated intake may have been declining. If so, lower levels of utilization may be needed to maintain animal performance. Maintenance of cottonwoods and animal performance considerations may dictate a lower stocking rate than achieved in this midsummer study.

34
NAL Call. No.: Videocassette no.977
The Desert oasis executive producer, Don Floyd ; produced and directed by Lynn G. Ketchum ; written by Don Floyd, Lynn G. Ketchum.
1 videocassette (27 min., 26 sec.) : sd., col. ; 1/2 in. VHS.
Language: English
Descriptors: Desertification; Riparian ecology; Desert plants; Deserts
Abstract: Discusses desertification, desert flora and fauna, and riparian areas in the desert. Dealing mainly with Arizona deserts, the video also presents the multiple uses of a desert and how to preserve the desert riparian areas and to retard the desertification process of overgrazing and drying up of water-ways.

35
NAL Call. No.: 60.18 J82
Differences in riparian vegetation structure between grazed areas and exclosures.
Schulz, T.T.; Leininger, W.C.
Language: English
Descriptors: Colorado; Cattle; Poa palustris; Poa pratensis; Salix; Riparian vegetation; Grazing effects; Population
Differences in vegetation biomass and structure due to cattle grazing in a northern Nevada riparian ecosystem.

Clary, W.P.; Medin, D.E.
Ogden, Utah: The Station; 1990 Aug.

Language: English

Descriptors: Nevada; Riparian grasslands; Grazing effects; Biomass production; Populus tremuloides; Salix; Poa pratensis; Regeneration; Stand structure

Abstract: Ephemeral channels may be greater contributors to nonpoint sediment loads than perennial channels because of their abundance and lower vegetative cover. This study examines above- and belowground standing crop responses of selected vegetation classes and density of shrubs to grazing use and yearly weather variation along an ephemeral stream in northcentral Wyoming. Aboveground biomass standing crop was determined yearly in channel, floodplain, and upland habitats in ungrazed and grazed pastures during the 4-year study. Belowground biomass and shrub densities were determined yearly in the channel habitat only. Perennial grass standing crop in channels did not respond to grazing but decreased up to 73% with decreases in frequency and amount of precipitation. In floodplains, perennial grasses were not responsive to grazing; annual grasses were twice as abundant in grazed pastures. Vegetation standing crop in uplands was not influenced by grazing. Over the study period in all pastures, standing crop of blue grama (Bouteloua gracilis (H.B.K.) Lag. ex Griffiths) declined 4 fold while cool-season grasses increased 5 fold. Shrub density did not increase as much in grazed as in ungrazed pastures. Root biomass of the channel decreased 23%
in years with less precipitation but was greater by 24% on concave than convex bank types. Location on channels influenced root biomass but grazing did not. Lack of general negative grazing influences on vegetation suggest short periods (10 days) of grazing as used in this study represent a sustainable management alternative for grazing in the cold desert.

38
NAL Call. No.: 281.9 M5842
An economic analysis of filter strips for controlling agricultural soil erosion.
Krieger, D.J.; Hoehn, J.P.; Vieux, B.E.
Language: English
Descriptors: Erosion control; Filters; Agricultural land; Marginal analysis; Cost benefit analysis; Computer software

39
NAL Call. No.: 412.9 N814
Economic issues of grazing and riparian area management.
Wagstaff, F.J.
Language: English
Descriptors: Grazing behavior; Grazing on public land; Livestock; Streams; Costs; Farm income

40
NAL Call. No.: 60.18 J82
Effects of cattle grazing on passerine birds nesting in riparian habitat. Taylor, D.M.
Language: English
Descriptors: Oregon; Grazing; Cattle; Grazing effects; Birds; Habitats; Species; Population density; Riparian vegetation; Salix

41
NAL Call. No.: 412.9 N814
Effects of grazing management on streambanks.
Bohn, C.C.; Buckhouse, J.C.

Language: English

Descriptors: Oregon; Grazing behavior; Grazing on public land; Cervus; Livestock; Odocoileus hemionus; Runoff; Stocking rate; Streams; Wildlife management

42
NAL Call. No.: aSD11.A42
The effects of large storm events on basin-range riparian stream habitats. Platts, W.S.; Gebhardt, K.A.; Jackson, W.L.
Fort Collins, Colo. : The Station; 1985.

Language: English

Descriptors: Nevada; Utah; Streams; Riparian vegetation; Stream erosion; Storms; Grazing effects

43
NAL Call. No.: S591.55.K4S64
Effects of tillage and grass filter strips on surface runoff of water, nitrate, sediment, and atrazine. Madison, C.E.; Blevins, R.L.; Frye, W.W.

Language: English

Descriptors: Runoff; Agricultural chemicals; Sediment; Farmland; No-tillage; Conservation tillage; Grass strips; Soil conservation; Filtration; Water conservation; Erosion control; Water pollution

44
NAL Call. No.: aSD11.A42
Fort Collins, Colo. : The Station; 1985.
General technical report RM - Rocky Mountain Forest and Range Experiment Station, United States, Forest Service (120): p.

Language: English

Descriptors: Stream channels; Erosion control; Revegetation; Riparian vegetation

45
NAL Call. No.: 56.8 J822
Erosion and deposition in a field/forest system estimated using cesium-137 activity.
Lowrance, R.; McIntyre, S.; Lance, C.

Language: English

Descriptors: U.S.A.; Erosion; Forests; Coastal plains; Sediments; Deposition; Estimates; Watersheds; Radioactive tracers; Sampling techniques

46
NAL Call. No.: aSD11.A42
Erosional downcutting in lower order riparian ecosystems: have historical changes been caused by removal of beaver?.
Parker, M.; Wood, F.J. Jr; Smith, B.H.; Elder, R.G.
Fort Collins, Colo.: The Station; 1985.

Language: English

Descriptors: Riparian vegetation; Stream erosion; Sedimentation; Beaver

47
NAL Call. No.: TD428.A37E9
Evaluating nutrient and sediment losses from agricultural lands vegetative filter strips.
Dillaha, T. A.
United States, Environmental Protection Agency, Chesapeake Bay Program, Virginia Polytechnic Institute and State University, Dept. of Agricultural Engineering, Virginia Agricultural Experiment Station, Virginia Polytechnic Institute and State University, Dept. of Agronomy Annapolis, MD: U.S. Environmental Protection Agency, Region III, Chesapeake Bay Liaison Office; 1987.
Evaluation of sediment deposition upslope from grass filters.
Guck, M.E.; Magette, W.L.; McClellan, P.W.

Language: English

Descriptors: Slopes; Sediments; Deposition; Grass strips; Filters; Measurement; Rill erosion

Evaluation of vegetative filter strips as a best management practice for feed lots.

Language: English

Descriptors: Vegetation management; Sedimentation; Nutrients; Environmental pollution; Filters; Runoff; Nitrogen; Phosphorus

Evaluation of vegetative filter strips using continuous simulation modeling techniques.
Williams, R.D.; Nicks, A.D.

Language: English

Descriptors: Herbicide residues; Runoff control; Grass strips; Simulation models

51
NAL Call. No.: 56.8 J822
Farmers' response to a filter strip program: results from a contingent valuation survey.
Purvis, A.; Hoehn, J.P.; Sorenson, V.L.; Pierce, F.J.

Language: English

Descriptors: Farmers; Filters; Soil conservation; Water pollution

52
NAL Call. No.: TD419.R47
Fate of alachlor and atrazine in a riparian zone field site.
Paterson, K.G.; Schnoor, J.L.

Language: English

Descriptors: Iowa; Alachlor; Atrazine; Herbicide residues; Field tests; Movement in soil; Plants; Uptake; Experimental plots; Zea mays; Populus

53
NAL Call. No.: QH545.A23E58
Field studies on the terrestrial behavior of actinide elements in East Tennessee.

Language: English

Descriptors: Tennessee; Riparian vegetation; Elements; Flood plains; Field tests; Food chains; Rats
54
NAL Call. No.: 275.29 F66C
Forest grazing.
Tanner, G.W.

Language: English
Descriptors: Florida; Farm woodlands; Grazing tenancy; Grass strips; Underwood; Farm leases; Pines

55
NAL Call. No.: SF85.A1R32
Forty years of change in a shadscale stand in Idaho.
Sharp, L.A.; Sanders, K.; Rimbey, N.

Language: English
Descriptors: Idaho; Range management; Riparian grasslands; Atriplex confertifolia

56
NAL Call. No.: SF85.A1R32
The geomorphic process: effects of base level lowering on riparian management. Masters, L.S.; Burkhardt, J.W.; Tausch, R.

Language: English
Descriptors: Western states of U.S.A.; Riparian grasslands; Range management; Erosion; Water erosion

57
NAL Call. No.: aSD11.U52
Grazing and the riparian zone: impact and management perspectives. Behnke, R.J.; Raleigh, R.F.
Grazing management heads Colorado range in right direction.
Fowler, R.

Grazing management in riparian areas.
Kinch, Gene
United States, Bureau of Land Management

Grazing management influences on two brook trout streams in Wyoming.
Hubert, W.A.; Lanka, R.P.; Wesche, T.A.; Stabler, F.
Fort Collins, Colo. : The Station; 1985.

Groundwater nitrate and denitrification in a coastal plain
Abstract: Mechanisms of nitrate (NO₃) removal from groundwater in riparian forests are poorly understood. This study was conducted in the Georgia coastal plain to: (i) determine changes in NO₃ and Cl concentrations within shallow groundwater moving from a row-crop field to a stream; (ii) determine the spatial and temporal distribution of denitrification potential relative to changes in NO₃ concentrations; and (iii) determine whether NO₃ or C supply was limiting denitrification potential. Nitrate and Cl concentrations in groundwater were measured biweekly or monthly for October 1988 through May 1990. Denitrification potentials, indicated by the denitrification enzyme assay, were measured bimonthly from October 1988 through October 1989. Modified potential measurements, lacking either NO₃, C, or both, were also performed bimonthly. Both NO₃ and NO₃/Cl ratios in groundwater decreased by a factor of 7 to 9 in the first 10 m of forest. Within the next 40 m of forest, mean NO₃ concentration decreased from 1.80 to 0.81 mg NO₃-N L⁻¹. Denitrification potential was more than two orders of magnitude higher in the top 10 cm of soil than in the top 10 cm of the shallow aquifer. Denitrification potential was consistently highest in surface soil nearest the field and nearest the stream and was limited by NO₃ availability in all surface soil samples. Denitrification potential was highest in October and August. Although NO₃ is definitely being removed from shallow groundwater, it is apparently not due to direct denitrification from the saturated zone. High denitrification potential in surface soils, especially near the field/forest interface, may contribute to NO₃ disappearance from shallow groundwater. Processes associated with intact riparian vegetation appear to play the primary role in N removal.
Desert selection by cattle along an ephemeral channel.
Smith, M.A.; Rodgers, J.D.; Dodd, J.L.; Skinner, Q.D.
Includes references.

Descriptors: Wyoming; Cattle; Habitat selection; Streams;
Seasonal fluctuations; Grazing effects; Feeding preferences;
Forage; Crop quality; Crude protein; Protein content; Dry
matter; Grazing behavior; Upland areas; Riparian vegetation

Abstract: Because of widespread concern about cattle grazing
effects on riparian zones of public lands, seasonal habitat
selection by cattle was studied along a cold desert area
ephemeral waterway of northcentral Wyoming. Little is known of
grazing effects on ephemeral streams compared to perennial
streams. Cattle activity was monitored in small pastures and a
surrounding large allotment in spring, summer, and fall.
Observations included activity and habitat where it occurred.
Concomitantly, utilization levels, protein content, and dry
matter content of forages were determined in the small
pastures. A higher percent of cattle selected channel and
floodplain habitats than percent area of habitats while a
lower percent of cattle selected upland habitat than percent
of this habitat in the area. Utilization levels of forages
except greasewood (Sarcobatus vermiculatus (Hook.) Torrey) in
the floodplain were not greatly different among habitats.
Protein and dry matter content of forages did not vary greatly
among habitats, except greasewood had higher protein and lower
dry matter than other species and received much higher use.
Forage quality declined in summer and fall. Animal preference
for channel habitat was attributed to more available forage in
the channels. In contrast, selection of floodplains was due to
succulence and high protein content of greasewood. Comparison
of cattle selectivity between small pastures and the large
allotment indicates that greater avoidance of upland areas by
cattle is likely due to greater distances to drinking water in
the large allotment.

High quality restoration of riparian ecosystems.
Baird, K.
Includes references.
Historical channel narrowing and riparian vegetation expansion in the Medicine Lodge River basin, Kansas, 1871-1983.  
Martin, C.W.; Johnson, W.C.  

Hydrologic influences on leaf decomposition in a channel and adjacent bank of a gallery forest stream.  
Gurtz, M.E.; Tate, C.M.  

Impact of grazing on a riparian garter snake.  
Szaro, R.C.; Belfit, S.C.; Aitkin, J.K.; Rinne, J.N.  
Fort Collins, Colo. : The Station; 1985.  
68
NAL Call. No.: SF85.3.D48
Impacts of grazing intensity and specialized grazing systems on livestock response.
Malechek, J.C.
Language:  English
Descriptors: Grazing effects; Grazing intensity; Grazing systems; Riparian vegetation; Wildlife; Management

69
NAL Call. No.: SF85.3.D48
Impacts of grazing on wetlands and riparian habitat.
Platts, W.S.; Raleigh, R.F.
Language:  English
Descriptors: Grazing effects; Wetlands; Riparian vegetation; Range management; Wildlife management

70
NAL Call. No.: SF85.3.D48
Impacts of grazing on wetlands and riparian habitat: a review of our knowledge.
Skovlin, J.M.
Language:  English
Descriptors: Grazing effects; Grazing lands; Wetlands; Riparian vegetation

71
NAL Call. No.: SF85.A1R32
The importance of rancher input in solving riparian problems.
Thomas, H.S.
Improving riparian habitats.
Floyd, D.; Ogden, P.; Roundy, B.; Ruyle, G.; Stewart, D.
Includes references.
Language:  English
Descriptors: Arizona; Range management; Rotational grazing; Riparian forests; National forests; Habitat improvement; Wetlands; Ecosystems; Nature conservancy; Wildlife conservation

Increasing summer flow in small streams through management of riparian areas and adjacent vegetation: a synthesis.
Stabler, D.F.
Fort Collins, Colo. : The Station; 1985.
Language:  English
Descriptors: Stream flow; Riparian vegetation; Vegetation management; Grazing effects; Dams

Interdependence of groundwater, riparian vegetation, and streambank stability: a case study.
Groeneveld, D.P.; Grieppentrog, T.E.
Fort Collins, Colo. : The Station; 1985.
Language:  English
Descriptors: California; Riparian vegetation; Groundwater; Stream channels; Stability; Resource conservation; Erosion control

75
NAL Call. No.: SF85.A1R32
Livestock control with electrical and audio stimulation.
Quigley, T.M.; Sanderson, H.R.; Tiedemann, A.R.; McInnis, M.L.

Language:  English
Descriptors: Livestock; Behavior; Animal behavior; Riparian grasslands; Electrical stimulation

76
NAL Call. No.: QH541.5.R3P3 1984
Livestock crazing and the riparian zone.
Bedell, T.E.
Corvallis, Or. : Oregon State University; 1984.

Language:  English
Descriptors: Livestock; Grazing effects; Riparian vegetation; Controlled grazing

77
NAL Call. No.: aSD11.A42
Livestock grazing effects on southwestern streams: a complex research problem. Rinne, J.N.
Fort Collins, Colo. : The Station; 1985.

Language:  English
Descriptors: Streams; New Mexico; Livestock; Grazing effects; Riparian vegetation; Habitats; Fishes

78
NAL Call. No.: HD241.C52
Livestock grazing on western riparian areas.
Livestock impacts on riparian ecosystems and streamside management implications...a review.

Kauffman, J.B.; Krueger, W.C.


Literature review. Includes references.

Language: English

Descriptors: Streams; Riparian vegetation; Livestock farming; Grazing; Water resources

Livestock impacts on riparian systems.

Buckhouse, J.C.

Corvallis, Or. : The Station; 1985 May.

Special report - Oregon State University, Agricultural Experiment Station (724): p. 43-48; 1985 May. Includes references.

Language: English

Descriptors: Cattle farming; Riparian vegetation; Grazing; Resource management

Livestock management in the riparian ecosystem.

Bryant, L.D.

Fort Collins, Colo. : The Station; 1985.


Language: English

Descriptors: Livestock; Grazing effects; Controlled grazing;
Habitat improvement

82
NAL Call. No.: QH541.5.R3P3 1984
Livestock production possibilities on streamside meadows.
Vavra, M.
Corvallis, Or. : Oregon State University; 1984.
Range watersheds, riparian zones and economics: interrelationships in management and use: Proceedings, 1984
Pacific Northwest Range Management Short Course / Oregon State University. p. 35-44; 1984. Includes references.

Language: English

Descriptors: Meadows; Streams; Riparian vegetation; Beef cattle; Controlled grazing; Beef production; Production possibilities

83
NAL Call. No.: 56.8 J822
Long-term sediment deposition in the riparian zone of a coastal plain watershed.
Lowrance, R.; Sharpe, J.K.; Sheridan, J.M.

Language: English

Descriptors: South eastern states of U.S.A.; Erosion; Sediment pollution; Agricultural development; Environmental impact reporting; Quantitative analysis; Riparian vegetation; Ecosystems; Coastal plains; Watersheds; Humid zones; Subtropics

84
NAL Call. No.: aSD11.A48 no.263
Managing grazing of riparian areas in the intermountain range.
Clary, Warren P.; Webster, Bert F.
Intermountain Research Station (Ogden, Utah)

Language: English

Descriptors: Grazing; Range management

85
NAL Call. No.: GB565.W8W9 1986
Managing riparian stream habitats.
Platts, W.S.
Language: English

Descriptors: Nitrate; Nitrate fertilizers; Water pollution; Runoff; Drainage; Denitrification; Denitrifying microorganisms; Lakes; Rivers; Surface water; Soil types (ecological)

89
NAL Call. No.: aG4182.T87J4 1980 .U5 Map
Mitigation area detail map, Turkey-Clay Creek Watershed, South Dakota figure 3-4. Figure 3-4, mitigation area detail map, Turkey-Clay Creek Watershed, South Dakota United States. Soil Conservation Service Lincoln, Neb. : The Service,; 1980.
1 map ; on sheet 31 x 51 cm. 6-10-80. Source: 1977 county highway map, 1957 USGS topographic quad map (7.5'), and information from SCS field personnel. Includes location map. 5,0-37,875.

Language: English; English

Descriptors: Soil conservation; South Dakota; Turkey-Clay Creek Watershed; Maps; Streambank planting; South Dakota; Turkey-Clay Creek Watershed; Maps

90
NAL Call. No.: 290.9 AM3PS (EE)
Modeling phosphorus transport in grass buffer strips.
Lee, D.; Dillaha, T.A.; Sherrard, J.H.

Language: English

Descriptors: Grasses; Phosphorus; Metabolism; Simulation models

91
NAL Call. No.: aSD388.A1U52
New revetment design controls streambank erosion.
LaFayette, R.A.; Pawelek, D.W.

Language: English

Descriptors: New Mexico; Forestry engineering; Stream erosion; Stream training; Structures
Nitrogen dynamics in the riparian zone.
Schnabel, R.R.

Language: English

Descriptors: Streams; Groundwater pollution; Nitrates

Nitrogen turnover rates in a riparian fen determined by 15N dilution. Ambus, P.; Mosier, A.; Christensen, S.

Language: English

Descriptors: Denmark; Fen soils; Mineralization; Nitrogen; Isotope labeling; Nitrate reduction; Nitrification; Nitrogen cycle; Soil depth; Soil fertility; Ammonium

Nitrous oxide dissolved in soil solution: an insignificant pathway of nitrogen loss from a southeastern hardwood forest.
Davidson, E.A.; Swank, W.T.

Language: English

Descriptors: Forest soils; Riparian forests; Robinia pseudoacacia; Soil solution; Watersheds; Nitrous oxide; Nitrate nitrogen; Nitrogen; Losses from soil systems; Solubility; Groundwater; Streams; Nitrogen content; Water composition and quality; Seasonal fluctuations; Soil depth

Abstract: Nitrous oxide is soluble and can accumulate in soil solution when gaseous diffusion is restricted. The importance of N losses via degassing of N2O from groundwater entering surface streams is unknown. Measurements of N2O in soil solution revealed patterns of seasonal and spatial variation that were consistent with ecosystem regulation of denitrification. The highest concentrations were observed in the riparian zone in May, when soil NO3-, temperature and
moisture were conducive for denitrification. At each of the other sample dates and sites, at least one of these factors appeared to prevent significant N2O accumulation in soil solution. Extrapolation of the highest observed N2O concentrations to an annual basis corresponded to a loss of only 56 g N ha⁻¹ yr⁻¹. Denitrification in the riparian zone may be an important fate of N in this hardwood forest, but N2O in soil solution does not appear to be a significant pathway of N loss. This site might be expected to produce N2O at higher rates than most hardwood forests, but extrapolation of the highest calculated losses from soil solution over the global area occupied by hardwood forest indicates that this source of N2O is insignificant for global atmospheric budgets.

Language: English

Descriptors: New Zealand; Streams; Vegetation; Nitrogen retention; Water pollution

98
NAL Call. No.: 412.9 N814
Options for managing livestock in riparian habitats.
Davis, J.W.

Language: English

Descriptors: Habitat destruction; Habitat improvement; Animal husbandry; Environmental impact reporting; Grazing effects; Erosion; Overgrazing; Trampling

99
NAL Call. No.: S544.3.N3C66
Options for riparian grazing management.
Swanson, S.

Language: English

Descriptors: Nevada; Cattle; Riparian vegetation; Range management; Grazing

100
NAL Call. No.: 56.9 SO3
Phosphorus redistribution from cultivated fields into riparian areas. Cooper, J.R.; Gilliam, J.W.
Madison, Wis.: The Society; 1987 Nov.

Language: English

Descriptors: North Carolina; Phosphorus; Pollution by agriculture; River basins; Wetlands

101
NAL Call. No.: SF85.A1R32 A
pitch for Badger Creek.
Prescribed grazing as a secondary impact in a western riparian floodplain. Sedgwick, J.A.; Knopf, F.L.

Abstract: The effect of late-autumn cattle grazing on plant biomass was examined in a western Great Plains cottonwood riparian zone prone to catastrophic flooding every 5-8 years. Following 1 year of pre-treatment data collection in 1982, five 16-ha pastures were grazed from 1982 to 1984 and compared to 5 control pastures within the South Platte River floodplain in northeastern Colorado. At a prescribed grazing level of 0.46 ha/AUM, riparian vegetation proved to be resilient to the impacts of grazing. We detected only a few significant treatment effects for above-ground biomass after succeeding growing seasons. Willows (Salix spp.) responded negatively to grazing whereas biomass of prairie cordgrass (Spartina pectinata Link) was greater on grazed plots. Yearly changes in above-ground biomass, especially dramatic following a severe flood in 1983, suggest that periodic, catastrophic flooding is a major perturbation to the ecosystem, and in conjunction with our results on grazing impacts, indicate that dormant-season grazing within Soil Conservation Service (SCS) guidelines is a comparatively minor impact within the floodplain. In addition, grazing impacts were probably further mitigated by a major forage supplement of cottonwood leaves which was available at the time of cattle introductions. This local forage supplement ultimately created a lighter grazing treatment than that originally prescribed.
Processes of riparian systems: back to basics.
Elmore, W.

Language: English
Descriptors: U.S.A.; Riparian vegetation; Rangelands; Degradation; Stream conservation; Grazing systems; Range management

Quantification of nitrate uptake by riparian forests and wetlands in an undisturbed headwaters watershed.
Rhodes, J.; Skau, C.M.; Greenlee, D.; Brown, D.L.
Fort Collins, Colo. : The Station; 1985.

Language: English
Descriptors: Riparian forests; Watersheds; Wetlands; Riparian vegetation; Nitrates; Nutrient uptake; Nutrient transport

ranch dependent on streamside zone grazing.
Healy, M.W.

Language: English
Descriptors: Wyoming; Grazing; Farm management; Riparian vegetation; Grazing on public land

107
NAL Call. No.: GB565.W8W9 1986
Ranch management of streamside zones.
Sun, K.R.
Wyoming Water 1986 and Streamside Zone Conference :
proceedings : Wyoming's water doesn't wait while we debate :
Casper, Wyoming, April 28-30, 1986 / sponsored by Wyoming
155-166. ill; 1986.
Language: English
Descriptors: Wyoming; Range management; Riparian vegetation;
History; Desert climate; Controlled grazing

108
NAL Call. No.: QH541.5.R3P3 1984
Range watersheds, riparian zones and economics
interrelationships in management and use : Proceedings, 1984
Pacific Northwest Range Management Short Course.
Pacific Northwest Range Management Short Course 1984 :
Pendleton, OR. Corvallis, Or. : Oregon State University,;
1984.
98 p. : ill. ; 28 cm. Cover title. Includes bibliographies.
Language: English
Descriptors: Range management; Northwest, Pacific; Congresses;
Riparian ecology; Northwest, Pacific; Congresses; Watershed
management; Northwest, Pacific; Congresses

109
NAL Call. No.: QH541.5.R3P3 1984
Rangeland erosion: a question of measurement.
Barrett, H.
Corvallis, Or. : Oregon State University; 1984.
Range watersheds, riparian zones and economics :
interrelationships in management and use : Proceedings, 1984
Pacific Northwest Range Management Short Course / Oregon State
University. p. 75-77; 1984.
Language: English
Descriptors: Rangelands; Watersheds; Erosion; Riparian
vegetation; Measurement; Soil conservation

110
NAL Call. No.: aSD11.U52
Rangelands of southwestern United States.
Smith, E.L.  

Language: English

Descriptors: Arizona; New Mexico; Texas; Rangelands; Rangeland soils; Climate; Geology; Geomorphology; Vegetation; Ecosystems; Forest ecology; Riparian vegetation

111 NAL Call. No.: QH105.C2C36
Regional riparian research and a multi-university approach to the special problem of livestock grazing the Rocky Mountains and Great Plains. Crumpacker, D.W.  

Language: English

Descriptors: Riparian vegetation; Livestock; Grazing effects; Regeneration

112 NAL Call. No.: aSD11.A42
REM: a model for Riparian Ecosystem Management in agricultural watersheds. Lowrance, R.; Shirmohammadi, A.  
Fort Collins, Colo. : The Station; 1985.  

Language: English

Descriptors: Watersheds; Agricultural regions; Ecosystems; Riparian vegetation; Resource management; Nutrient transport; Models

113 NAL Call. No.: aSD11.U52
Repairing flood-damaged streams in the Pacific Northwest.  
Lines, I.L. Jr; Carlson, J.R.; Corthell, R.A.  

Language: English

Descriptors: Oregon; Washington; Streams; Erosion control; Floods; Rehabilitation; Geomorphology; Riparian vegetation

114
NAL Call. No.: S622.S37 no.15 A
review of information relevant to the riverine woodland and forest rangelands of south-western New South Wales.
Rangeland review: southern riverine woodlands
Dalton, K. L.
Chatswood, N.S.W. : Soil Conservation Service of N.S.W.,;

Language: English

Descriptors: Rangelands; Floodplains; Range plants; Riparian flora; Forest flora; Botany

115
NAL Call. No.: QH540.J6
Riparian afforestation effects on water yields and water quality in pasture catchments.
Smith, C.M.

Language: English

Descriptors: New Zealand; Pinus radiata; Afforestation; Watersheds; Catchment hydrology; Streams; Riparian forests; Water quality; Sediment; Nitrogen; Water yield; Phosphorus; Pastures; Transpiration; Water flow; Interception; Runoff; Overland flow

Abstract: The flow records for two pasture headwater catchments for 9 yr before, and 9 yr after riparian afforestation in one catchment were compared. Average rainfall was 1021 mm per yr. Riparian afforestation reduced water yields by 68 to 104 mm (21-55%) when the Pinus radiata stand was 8 to 10 yr old. Delayed runoff declined by 52 to 93 mm per yr (27-63%). Afforestation reduced the quickflow yield in 1 yr (22 mm or 40%). Peak flows declined in small events, were not affected in medium-sized events, and may have increased in large events. The large reductions in yield indicate that the riparian zone had a disproportionately important influence on
catchment hydrology. They are attributed to high transpiration losses from the riparian pine in seasons with water deficits, and higher than usual forest interception losses because of the small-scale planting. Streamwater sediment, total and dissolved N and P concentrations in these two catchments and another riparian afforested catchment were monitored for 2 yr. Concentrations were generally lower in the completely pastured catchment. Estimated annual sediment, total P, Kjeldahl N, and nitrate exports from the pasture catchment were 31 to 60%, 70%, 61 to 64% and 58 to 74% of those from the riparian afforested catchments in spite of a higher water yield. Possible explanations for the poor water quality in riparian afforested catchments are described including the lack of riparian wetlands, in-stream vegetation, and close riparian ground cover. The consequences of riparian afforestation in pasture catchments may not readily be predicted from the impacts of complete catchment afforestation.

116
NAL Call. No.: SF85.A1R32
Riparian area definition: a viewpoint.
Anderson, E.W.
Denver, Colo.: Society for Range Management; 1987 Apr.

Language: English
Descriptors: U.S.A.; Riparian vegetation; Wetlands; Range management; Identification

117
NAL Call. No.: 56.9 SO3
Riparian areas as filters for agricultural sediment.
Cooper, J.R.; Gilliam, J.W.; Daniels, R.B.; Robarge, W.P.
Madison, Wis.: The Society; 1987 Mar.

Language: English
Descriptors: North Carolina; Riparian vegetation; Sediments; Drainage; Watersheds; Deposition; Deposition site; Erosion; Watershed management; Cesium; Analytical methods

118
NAL Call. No.: SF85.A1R32
Riparian areas: perceptions in management.
Elmore, W.; Beschta, R.L.

Language: English
Descriptors: Oregon; Rangelands; Riparian vegetation; Arid
119
NAL Call. No.: 100 OR3M
Riparian erosion inside and outside of exclosures on Mill and McKay Creeks: a validation of management.
Buckhouse, J.C.; Bunch, T.R.
Corvallis, Or. : The Station; 1985 Jun.
Special report - Oregon State University, Agricultural Experiment Station (743): p. 29-30; 1985 Jun.

Language: English
Descriptors: Oregon; Streams; Erosion; Grazing systems; Pasture management

120
NAL Call. No.: S605.5.A43
Riparian forest communities and their role in nutrient conservation in an agricultural watershed.
Fail, J.L. Jr; Haines, B.L.; Todd, R.L.

Language: English
Descriptors: Georgia; Watersheds; Riparian forests; Upland areas; Nutrient cycles

121
NAL Call. No.: SF85.A1R32
Riparian grazing guidelines for the Intermountain region.
Clary, W.P.; Webster B.F.

Language: English
Descriptors: Western states of U.S.A.; Riparian grasslands; Grazing; Grassland management

122
NAL Call. No.: GB705.A6H9
Riparian habitats of the southeast Sierrita mountains: vanished perennial habitats.
Zauderer, J.

Language: English

Descriptors: Arizona; Riparian vegetation; Canopy; Mountain areas; Altitude; Zoning; Rivers; Reservoirs; Habitats; Eroded soils; History

123
NAL Call. No.: QH540.J6
Riparian losses of nitrate from agricultural drainage waters. Jacobs, T.C.; Gilliam, J.W.

Language: English

Descriptors: North Carolina; Watersheds; Coastal plains; Riparian forests; Pollution by agriculture; Nitrates; Denitrification; Drainage water; Riparian vegetation; Drainage systems; Soil types (genetic)

124
NAL Call. No.: SP85.A1R32
Riparian management improves Western rangeland. Campsey, L.

Language: English

Descriptors: Nevada; Cattle farming; Rangelands; Range management; Riparian grasslands

125
NAL Call. No.: S544.3.N3C66
Riparian pastures. Swanson, S.

Language: English

Descriptors: Pasture management; Riparian vegetation; Grazing; Control; Fencing
126
NAL Call. No.: 409.6 SO8
Riparian plant communities of the Fort Bayard watershed in southwestern New Mexico.
Medina, A.L.
Austin : Southwestern Association of Naturalists; 1986 Sep11.
Language: english
Descriptors: New Mexico; Riparian vegetation; Plant communities; Cluster analysis; Populus; Juglans; Acer; Alnus; Salix; Soil properties; Soil types; Grazing effects; Plant ecology

127
NAL Call. No.: SF85.A1R32
Riparian reminiscences.
Kindschy, R.R.
Language: english
Descriptors: Oregon; Riparian vegetation; Grazing effects; Revegetation; Plant succession; Program evaluation; Range management

128
NAL Call. No.: SF85.A1R32 A riparian research program.
Prouty, M.
Language: english
Descriptors: Nevada; Idaho; Utah; Riparian vegetation; Plant ecology; Resource management; Rangelands; Research projects; Environmental impact reporting

129
NAL Call. No.: QH301.N32
Riparian responses to various grazing systems and to periodic ice floes. Buckhouse, J.C.
references.

Language: English

Descriptors: Oregon; Grazing systems; Riparian forests; Ice; Livestock; Pasture management; Erosion

130 NAL Call. No.: SK351.W523
Riparian revegetation in California.
Gray, R.L.; Snieckus, R.; Wilcox, G.

Language: English

Descriptors: California; Riparian vegetation; Wildlife conservation; Soil conservation; Flood control; Salix; Revegetation

131 NAL Call. No.: S601.D4
Riparian stands.
Volny, S.

Language: English

Descriptors: Riparian forests; Riparian vegetation; Erosion control; River bank protection

132 NAL Call. No.: SK351.W523
Riparian stream management.
Platts, W.S.

Language: English

Descriptors: Riparian vegetation; Rangelands; Stream training; Watershed management

133 NAL Call. No.: QH105.C2C36
Riparian system/livestock grazing interaction research in the intermountain west.
Platts, W.S.

Language: English

Descriptors: Nevada; Utah; Idaho; Riparian vegetation; Livestock; Grazing effects; Aquatic environment; Research projects

134
NAL Call. No.: aSD11.A42
Riparian vegetation and indigenous southwestern agriculture: control of erosion, pests, and microclimate.
Nabhan, G.P.
Fort Collins, Colo. : The Station; 1985.

Language: English

Descriptors: Agriculture; Riparian vegetation; Vegetation management; Erosion control; Soil fertility; Microclimate; Climate control; Pest control; Fuelwood

135
NAL Call. No.: HD1775.G4G43
Riparian vegetation as filters of nutrients exported from a coastal plain agricultural watershed.

Language: English

Descriptors: Georgia; Riparian forests; Nutrients; Filters; Coastal plains; Watersheds

136
NAL Call. No.: QH105.C2C36
Riparian vegetation planting for flood control.
Chaimson, J.P.
California riparian systems: ecology, conservation, and
productive management / edited by Richard E. Warner and
Kathleen M. Hendrix. p. 121-123. ill; 1984. Includes
references.

Language: English

Descriptors: California; Riparian vegetation; Flood control;
Erosion control

137
NAL Call. No.: aSD11.A42
Riparian vegetation reduces stream bank and row crop flood
damages. Roseboom, D.; Russell, K.
Fort Collins, Colo. : The Station; 1985.
General technical report RM - Rocky Mountain Forest and Range
Experiment Station, United States, Forest Service (120); p.
241-244; 1985. Paper presented at the "Conference on Riparian
Ecosystems and their Management: Reconciling Conflicting
references.

Language: English

Descriptors: Illinois; Soil and water conservation; Land use;
Cropping systems; Erosion; Fishes; Habitats; Riparian
vegetation; Stream channels

138
NAL Call. No.: aSD11.U52
Riparian woodlands in jeopardy on northern High Plains.
Boldt, C.E.; Uresk, D.W.; Severson, K.E.
General technical report WO - U.S. Department of Agriculture,
Forest Service (12); p. 184-189. ill; 1979. Paper presented
at a "Symposium on Strategies for Protection and Management of
Floodplain Wetlands and other Riparian Ecosystems," Dec 11-13,
1978, Callaway Gardens, Georgia. Includes references.

Language: English

Descriptors: North Dakota; Woodlands; Riparian vegetation;
Rehabilitation; Environmental degradation; Grazing effects

139
NAL Call. No.: SF85.A1R32
Riparian zone inventory.
Braasch, S.; Tanner, G.W.
Includes references.

Language: English

Descriptors: Colorado; Riparian grasslands; Grassland
management; Grazing; Streams; Sediment; Water flow; Plant
succession

140
NAL Call. No.: SF85.A1R32 A
riparian zone--one story.
Bezanson, C.E.; Hughes, L.E.
Language: English
Descriptors: Arizona; Riparian grasslands; Rotational grazing; Cattle

141
NAL Call. No.: aSF84.84.N37 1985
Riparian-stream management.
Platt, W.S.
Language: English
Descriptors: U.S.A.; Riparian vegetation; Range pastures; Stream conservation; Grazing systems; Rehabilitation; Watershed management

142
NAL Call. No.: QH105.C2C36
The role of riparian vegetation in channel bank stability: Carmel River, California.
Kondolf, G.M.; Curry, R.R.
Language: English
Descriptors: California; Rivers; Riparian vegetation; Erosion control; Channels; Water table

143
NAL Call. No.: QH105.C2C36
Sacramento River environment: a management plan.
Kraemer, T.J.
References.

Language: English

Descriptors: California; Riparian forests; Riparian vegetation; Erosion control; Sedimentation

144
NAL Call. No.: 99.8 F7623
Salicaceae family trees in sustainable agroecosystems.
Licht, L.A.
Ottawa: Canadian Institute of Forestry; 1992 Apr.

Language: English

Descriptors: Iowa; Salicaceae; Populus; Sustainability; Strip cropping; Groundwater; Water quality; Nitrates; Nitrogen; Nutrient uptake; Ecosystems

Abstract: Research at the University of Iowa is testing the ECOLOTREE BUFFER, a prototype wooded buffer strip planted between a creek and row-cropped land with roots grown intentionally deep enough to intersect the near-surface water table. This project demonstrates that Populus spp. trees cultured by using this technique are both ecologically sustaining and productive. Measured data prove that nitrate is removed from near-surface groundwater and that the nitrogen uptake is present as protein in the leaves and the woody stems. The tree's physiological attributes contribute to a harvested value that can "pay its way"; these include fast wood growth, cut-stem rooting, resprouting from a stump, phreatophytic roots, and a high protein content in the leaves. The wooded riparian strip changes the local agroecosystem by reducing fertilizer nutrients causing surface water eutrophication, by diversifying wildlife habitat, by reducing soils erosion caused by wind and water, by diversifying the crop base, by creating an aesthetic addition in the landscape. This idea is a potential technique for managing non-point source pollutants created by modern farming practices.

145
NAL Call. No.: FICHE 290.9 AM32P
Sediment and phosphorus transport in vegetative filter strips: phase 1, field studies.
American Society of Agricultural Engineers, Order Dept., 2950 Niles Road,

Language: English

Descriptors: Environmental pollution; Pollution by agriculture; Control methods; Filters

146
NAL Call. No.: 500 AM322A
Should cows chew cheatgrass on commonlands?.
Gillis, A.M.
Language: English

Descriptors: Arizona; California; Colorado; Idaho; Montana; Nevada; New Mexico; Oregon; Utah; Washington; Wyoming; Land management; Range management; Resource conservation; Riparian grasslands; Grazing intensity; Beef cattle

147
NAL Call. No.: A99.9 F764U
Small mammal populations in a grazed and ungrazed riparian habitat in Nevada. Medin, D.E.; Clary, W.P.
Ogden, Utah : The Station; 1989 Oct.
Language: English

Descriptors: Nevada; Wildlife; Mammals; Habitats; Riparian vegetation; Populus tremuloides; Salix; Grazing effects; Population dynamics

148
NAL Call. No.: aSD11.U52
Soil conservation service and riparian ecosystems: a long-term view. Barry, V.H. Jr
Language: English

Descriptors: Soil conservation; Resource conservation; Ecosystems; Usda; Riparian vegetation
Soil N mineralization and nitrification in relation to nitrogen solution chemistry in a small forested watershed.

Hill, A.R.; Shackleton, M.

Language: English

Descriptors: Ontario; Watersheds; Woodlands; Nitrates; Nitrification; Nitrogen mineralization; Riparian forests; Soil water; Upland areas; Ecosystems

Some responses of riparian soils to grazing management in northeastern Oregon.

Bohn, C.C.; Buckhouse, J.C.

Language: English

Descriptors: Oregon; Riparian forests; Soil water relations; Grazing effects; Soil properties; Range management

Stabilization of streambanks and riparian zones by riprap combined with selected vegetative engineering structures.

Costales, E.F. Jr; Costales, A.B.

Language: English

Descriptors: Riparian vegetation; Streams; Soil stabilization; Erosion control; Mulching; Grass strips; Rocks; Revegetation plants

Steambank stability and cattle grazing in southwestern Montana.

Marlow, C.B.; Pogacnik, T.M.; Quinsey, S.D.

Language: English
Descriptors: Montana; Cattle; Grazing effects; Grazing systems; Riparian vegetation; Streams; Stream channels; Stability; Trampling; Erosion; Soil moisture; Stream flow

153
NAL Call. No.: aG4172.U6J5 1979 .U5 Map
1 map : col. ; 44 x 26 cm. 9-12-79. Source: 1974 aerial photography and information from SCS field personnel. Due to inherent aerial photographic displacement, the photographic image may vary from true ground location. Includes location map. 5,0-37,627.1.
Language: English
Descriptors: Animal waste; Environmental aspects; Wisconsin; Upper Sugar River Watershed; Maps; Grazing; Environmental aspects; Wisconsin; Upper Sugar River Watershed; Maps; Range management; Wisconsin; Wisconsin; Upper Sugar River Watershed; Maps

154
NAL Call. No.: FICHE S-72
Stream corridor management--a response to streambank erosion. Studer, L.L.; Keep, T.A.
Language: English
Descriptors: Missouri; Stream erosion; Control methods; Local planning

155
NAL Call. No.: 292.8 W295
Streambank erosion along two rivers in Iowa. Odgaard, A.J.
Water resources research v. 23 (7): p. 1225-1236. ill., maps; 1987 Jul. Includes references.
Language: English
Descriptors: Iowa; Rivers; Erosion; Channels; Flow; Sediment pollution
Streambank erosion control on the Winooski River, Vermont.
54 p. : ill., charts, maps, plans ; 23 cm. (Circular / United States Department of Agriculture ; no. 837). Cover title.

Language: English
Descriptors: Soil conservation; Vermont; Streambank planting; Vermont

Streambank erosion due to bed degradation.
Alonso, C.V.; Combs, S.T.

Language: English
Descriptors: Stream erosion; Stream flow; Simulation models

Streambank erosion due to bed degradation--a model concept.
Alonso, C.V.; Combs, S.T.

Language: English
Descriptors: Stream erosion; Models

Abstract: Processes of fluvial erosion which operate on the banks of alluvial streams are examined by considering mechanisms of bed and bank erosion and mass failure of drained, homogeneous, cohesive banks. These concepts are used to formulate a mathematical model to evaluate bed degradation for the case in which bed lowering causes bank instability. Application of the model to a laboratory experiment verifies the behavior of the bed degradation submodel. Analysis of a more complex scenario demonstrates the importance of considering streambank erosion in streambed degradation analyses.
Streambank plants vital to water quality. 
Sherman, H. 
Language:  English 
Descriptors: Stream erosion; Sediments; River bank protection; Revegetation; Erosion control 

Streambank stability and cattle grazing in southwestern Montana: a response to the viewpoint. 
Marlow, C.B. 
Language:  English 
Descriptors: Montana; Cattle; Soil conservation; Grazing effects; Stream erosion; Banks; Stream flow 

Streambank stabilization techniques used by the Soil Conservation Service in California. 
Patterson, D.W.; Finch, C.U.; Wilcox, G.I. 
Language:  English
Descriptors: California; Streams; Soil and water conservation; Soil stabilization; Vegetation

163
NAL Call. No.: SF85.A1R32
Streamside and upland vegetation use by cattle.
Platts, W.S.; Nelson, R.L.
Language: English
Descriptors: Idaho; Utah; Nevada; Upland areas; Riparian vegetation; Cattle; Grazing systems; Range management; Study sites

164
NAL Call. No.: QH1.J62
Stress and disturbance: vegetation dynamics in the dry Chaco region of Argentina.
Adamoli, J.; Sennhauser, E.; Acero, J.M.; Rescia, A.
Language: English
Descriptors: Argentina; Savannas; Ecosystems; Grazing effects; Plant communities; Riparian forests; Rivers; Vegetation types

165
NAL Call. No.: QH540.E288
The study of stream ecosystems: a functional view.
Cummins, K.W.
Language: English
Descriptors: Streams; Inland water environment; Freshwater ecology; Detritivores; Nutrient cycles; Ecosystems; Invertebrates; Riparian vegetation

166
NAL Call. No.: SF85.A1R32
Successful range management in the McCoy Gulch Riparian Demonstration Area. Grette, T.
Taming streambank erosion.
Stroud, T.

Descriptors: Stream erosion; Protection; Control methods

Texas creek riparian enhancement study.
Prichard, D.E.; Upham, L.L.

Descriptors: Texas; Environmental impact reporting; Grazing effects; Habitat destruction; Habitat improvement; Livestock; River bank protection; Salmo trutta; Streams

Time of grazing and cattle-induced damage to streambanks.
Marlow, C.B.; Pogacnik, T.M.
Fort Collins, Colo. : The Station; 1985.

Descriptors: Streams; Cattle; Grazing effects; Erosion; Erosion control; Controlled grazing; Seasons
The use of cattle as a management tool for wildlife in shrub-willow riparian systems.

Krueger, H.O.; Anderson, S.H.
Fort Collins, Colo.: The Station; 1985.

Language: English

Descriptors: Cattle; Grazing; Wildlife; Habitats; Resource management

Use of vegetative filter strips to minimize sediment and phosphorus losses from feedlots. phase 1. Experimental plot studies.

Dillaha, T. A.

Language: English

Descriptors: Feedlot runoff; Animal waste
Using CREAMS to simulate filter strip effectiveness in erosion control. Williams, R.D.; Nicks, A.D.

Language: English
Descriptors: Oklahoma; Erosion control; Simulation models; Filtration; Grass strips; Agricultural land; Watersheds; Runoff water

Using the CREAMS model to estimate the effect of diversions on soil loss. Line, D.E.; Meyer, L.D.

Language: English
Descriptors: Erosion control; Models; Grass strips; Sloping land

Value of forested wetlands as filters for sediments and nutrients. Kuenzler, E.J.

Language: English
Descriptors: South eastern states of U.S.A.; Wetlands; Forests; Sediments; Nutrients; Runoff water; Pollution; Pollutants; Nitrogen; Phosphorus; Riparian vegetation

Variation of stream stability with stream type and livestock bank damage in northern Nevada. Myers, T.J.; Swanson, S.
Abstract: Many natural and anthropogenic factors contribute to the stability or erodibility of stream channels. Although a stream rating procedure used by more than 60 percent of the U.S. National Forests provides an estimate overall stability, it does not identify the cause of instability or indicate corrective management. To better sort natural from livestock influences, stream stability rating indicator variables were related to stream types and levels of ungulate bank damage in a large data base for streams in northern Nevada. Stability and the range in stability varied naturally with stream type. Ungulate bank damage had different effects on different stream types and on different parts of their cross-sections. Vegetation is more important for stability on certain stream types than on other types. Streams with noncohesive sand and gravel banks are most sensitive to livestock grazing. Range managers should consider the stream type when setting local standards, writing management objectives, or determining riparian grazing strategies.
Descriptors: Pollution by agriculture; Control methods; Vegetation; Filters; Runoff collection; Nutrient retention; Sediments

179
NAL Call. No.: 290.9 AM32T
Vegetative filter strips for agricultural nonpoint source pollution control. Dillaha, T.A.; Reneau, R.B.; Mostaghimi, S.; Lee, D.
Language: English
Descriptors: Grass strips; Dactylis glomerata; Pollution by agriculture; Erosion control; Water erosion; Rainfall simulators

180
NAL Call. No.: aS627.S8V4
Vegetative measures for streambank stabilization case studies from Illinois and Missouri.
United States, State and Private Forestry, Northeastern Area
1 folded sheet (6 p.) : ill. ; 23 cm. Cover title.
Language: English
Descriptors: Streambank planting; Stream conservation

181
NAL Call. No.: SF85.A1R32
Whitehorse Butte allotment--controversy to compromise.
Holbert, M.R.
Language: English
Descriptors: Oregon; Range management; Overgrazing; Riparian vegetation; Grazing systems; Semiarid climate

182
NAL Call. No.: SF85.A1R32
Will the riparian pasture build good streams?.
Platts, W.S.; Nelson, R.L.
Willow planting success as influenced by site factors and cattle grazing in northeastern California.
Conroy, S.D.; Svejcar, T.J.
Includes references.

Wyoming's challenge in riparian habitat management.
Busby, F.

Wyoming's land managers.
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Document Delivery Services Branch, PhotoLab
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Beltsville, Maryland 20705-2351

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2) DOCUMENT DELIVERY SERVICES AVAILABLE TO LIBRARIES, OTHER INFORMATION CENTERS AND COMMERCIAL ORGANIZATIONS.
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Submit requests to state/region/network sources prior to sending to NAL. Within the United States, possible sources are public libraries, land-grant university libraries or other large research libraries within a state. In other countries submit requests to major university, national or provincial institutions. If the needed publications are not available from these sources, submit requests to NAL with a statement indicating their non-availability.

REQUESTS -- Submit on the American Library Association (ALA) or the International Federation of Library Associations and Institutions (IFLA) interlibrary loan form or via electronic mail or telefacsimile (see over for more details). Include the complete name of the person authorizing the request on each form; the standard bibliographic source which lists the title as owned by NAL; and the call number if the citation is from an NAL database (CAIN/AGRICOLA, "Bibliography of Agriculture," or the NAL catalog).

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Send Requests to:
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Submit requests to major university libraries, national or provincial institutions or network sources prior to sending requests to NAL. If the needed publications are not available from these sources, submit requests to NAL with a statement indicating their non-availability.

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REQUESTS -- Submit requests on the American Library Association (ALA) or the International Federation of Library Associations and Institutions (IFLA) interlibrary loan form or via electronic mail or telefacsimile (see over for more details). Include the complete name of the person authorizing the request on each form; the standard bibliographic source which lists the title as owned
by NAL; and the call number if the citation is from an NAL database (CAIN/AGRICOLA, "Bibliography of Agriculture", or the NAL catalog).

DOCUMENT DELIVERY SERVICE -- Submit a separate completed interlibrary loan form for each article requested. Indicate willingness to pay charges on the form, and compliance with copyright law or include a statement that the article is for "research purposes only". Requests cannot be processed without these statements. Please read copyright notice below.

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Document Delivery Services Branch, ILL, PhotoLab
10301 Baltimore Blvd., NAL Bldg.
Beltsville, Maryland  20705-2351

Contact the Head, Document Delivery Services Branch at (301) 504-5755 with questions or comments about this policy.

ELECTRONIC MAIL ACCESS FOR INTERLIBRARY LOAN (ILL) REQUESTS

June 1993

The National Agricultural Library (NAL), Document Delivery Services Branch accepts ILL requests from libraries via several electronic services. All requests must comply with established routing and referral policies and procedures. The transmitting library will pay all fees incurred during the creation of requests and communication with NAL. A sample format for ILL requests is printed below along with a list of the required data/format elements.

ELECTRONIC MAIL  -  (Sample form below)
INTERNET . . . . LENDING@NALUSDA.GOV
EASYLINK . . . .  62031265
ONTYME . . . .   NAL/LB
TWX/TELEX . . . Number is 710-828-0506 NAL LEND.
This number may only be used for ILL requests.

FTS2000 . . . . A12NALLEND
OCLC . . . . NAL's symbol AGL need only be entered once, but it must be the last entry in the Lender string. Requests from USDA and Federal libraries may contain AGL anywhere in the Lender String.

SAMPLE ELECTRONIC MAIL REQUEST
=================================================================
| AG University/NAL   ILLRQ 231     4/1/93     NEED BY:  6/1/93 |
|=================================================================

Interlibrary Loan Department
Agriculture University
Heartland, IA  56789

Dr. Smith  Faculty  Ag School

DeJong, R.  Comparison of two soil-water models under semi-arid growing conditions
Ver:  AGRICOLA
Remarks:  Not available at IU or in region.
NAL CA:  56.8 C162

Auth:  C. Johnson  CCL  Maxcost: $15.00
MORE
TELEFACSIMILE - Telephone number is 301-504-5675. NAL accepts ILL requests via telefacsimile. Requests should be created on standard ILL forms and then faxed to NAL. NAL does requests via Fax at this time.

REQUIRED DATA ELEMENTS/FORMAT

1. Borrower's address must be in block format with at least two blank lines above and below so form may be used in window envelopes.
2. Provide complete citation including verification, etc.
3. Provide authorizing official's name (request will be rejected if not included).
4. Include statement of copyright compliance if applicable.
   * Please read copyright notice below.
5. Indicate willingness to pay applicable charges.
6. Include NAL call number if available. Contact the Document Delivery Services Branch at (301) 504-6503 if additional information is required.

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37 C.F.R. '201.14

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Riparian Zones and Freshwater Wetlands. Art L. Oakley Jim A. Collins Larry B. Everson. Riparian zones and wetlands provide some of the most important wildlife habitat in forestlands of western Oregon and Washington. Wildlife use is generally greater than in other habitats because the major life requirements for many species are present. Aquatic and amphibious species are normally found only in these habitats (fig. Strips of old-growth forest left along streams also serve as "connectors" for wildlife to move between otherwise isolated stands of old growth (Franklin et al. 1981) (fig. 4). Productive fish habitats and good water quality depend on well-developed vegetative communities in riparian zones.