

Bibliografía

- Aimar, S.B. 2002.** Estimaciones cualitativas y cuantitativas de pérdidas por erosión eólica en suelos de la región semiárida pampeana central. Tesis de Maestría, Universidad Nacional del Sur, Argentina, 143 pp.
- Allmaras, R.R., Burwell, R.E., Larson, W.E., Holt, R.F., 1966.** Total porosity and random roughness of the interrow range as influenced by tillage. USDA Conserv. Res. Rept. 7, 22 pp.
- Annesi-Maesano, I., Forastiere, F., Kunzli, N., Brunekref, B., 2007.** Particulate matter, science and EU policy. European Respiratory Journal 29, 428–431.
- Armbrust, D. V.** 1984. Wind sandblast injuries to field crops: effects on plant age. Agron. J. 76:991-993.
- Bondy E., Lyles L., Hayes, W.A. 1980.** Computing soil erosion by periods using wind – energy distribution. J. Soil Water Cons. 35, 173-176.
- Bravo, O. y J.C. Silenzi, 1991.** Dimensionamiento del cultivo en franjas mediante el uso de la ecuación de erosión eólica. Presentación en panel a cargo de los autores. Resúmenes X Reunión CAPERAS, 105-107. Bahía Blanca, 23 al 25 de Octubre de 1991.
- Brown, L.G., Foster G. R. 1987.** Storm erosivity using idealized intensity distributions. Transactions of the ASAE 30: 379-386.
- Bryan, K. 1923.** Wind erosion near Lees Ferry, Arizona. Am. J. Sci. 6: 291-307.
- Buschiazzo DE.** 2006. Management systems in southern South America. In: Peterson GA, Unger PW, Payne WA (Eds.) Dryland Agriculture, 2nd Ed., Monograph 23. ASA/CSSA/SSSA, Madison, WI. Pp 395-426.
- Buschiazzo, D. E.; Taylor, V. 1993.** Efectos de la erosión eólica sobre algunas propiedades de suelos de la Región Semiárida Pampeana Central. Ciencia del Suelo, 10/11:46-53.
- Buschiazzo, D. E.; Zobek, T. M.; Aimar S. B. 1999.** Wind erosion in loess soils of the Semiarid Argentinian Pampas. Soil Sci. 69:835-847.
- Buschiazzo, D. E.; Aimar S. B. 2003.** Erosión eólica: Procesos y predicción. En: Viento, Suelo y Plantas, Golberg y Kin (Eds.). Ediciones INTA. E.E.A. Anguil, Facultad de Agronomía, Universidad Nacional de La Pampa, La Pampa, Argentina.
- Buschiazzo DE, Zobeck TM. 2005.** Airborne horizontal mass flux calculated with different equations. Transactions of ASAE Annual International Meeting, 17-20 July, Florida, USA.

- Buschiazzo, D.E., Zobeck, T.M. 2006.** Wind erosion predictions using WEQ, RWEQ and WEPS in an Entic Haplustoll of the Argentinean Pampas. Transactions of ICAR VI, July 24- 28 2006. Univ. Guelph, Canada.
- Buschiazzo, D.E, Panebianco, J. E., Guevara, G., Rojas, J., Zurita, J.J., Bran, D., Lopez, D., Gaitan, J., Hurtado, P. 2009.** Erosión eólica en Argentina: su incidencia potencial sobre la degradación del suelo y la calidad del aire. Ciencia del Suelo Vol 29.
- Butler, H.J., McTainsh, G.H., Hogarth, W.L., Leys, J.F. 2005.** Kinky profiles: effects of soil surface heating upon vertical dust concentration profiles in the Channel Country of western Queensland, Australia, Journal of Geophysical Research - Earth Surface. 110 (F04025).
- Butterfield GR. 1999.** Near-bed mass flux profiles in aeolian sand transport: high-resolution measurements in a wind-tunnel. Earth Surf. Proc. Landforms 24: 393–412.
- Casagrande, G.A., Vergara, G.T. 1996.** Características climáticas de la región. En: Buschiazzo, D.E., Panigatti J.L., Babinec, F.J. (Eds.). Labranzas en la Región Semiárida Argentina. INTA, Argentina, pp 11-17.
- Chen, W., Yang, Z., Zhang, J., Han, Z. 1996.** Vertical Distribution of Wind-Blown Sand Flux in the Surface Layer Taklamakan Desert, Central Asia'" Phys. Geog 17: 193-218
- Chepil,W.S., 1962.** A compact rotary sieve and the importance of dry sieving in physical soil analysis. Soil Sci. Soc. Am. Proc. 26, 4–6.
- Chen, W., Yang, Z., Zhang, J., Han, Z. 1996.** Vertical Distribution of Wind-Blown Sand Flux in the Surface Layer, Taklamakan Desert, Central Asia. Phys.Geog., 17: 193 – 218.
- Chepil, W.S., Siddoway, F.H., Armbrust, D.V. 1962.** Climatic factor for estimating wind erodibility of farm fields. J. Soil Water Cons. 17, 162-165
- Colotti, E. 1996.** Aplicabilidad de los datos de lluvia horaria en el cálculo de la erosividad. Tesis de Maestría. Facultad de Humanidades y Educación. Universidad Central de Venezuela. Caracas.
- Covas, D. S.; Glave, A. E. 1988.** Erosión. Provincia de La Pampa. En: El deterioro del ambiente en la Argentina. Fundación para la educación, la ciencia y la cultura. FECIC. pp. 109-114.
- de Oro LA, Buschiazzo DE. 2008.** Threshold wind velocity as an index of soil susceptibility to wind erosion under variable climatic conditions. Land Degrad, Develop. 20: 14-21. DOI: 101002/ldr.863.

- Dong Z, Wang H, Liu X, Wang X. 2004a.** The blown sand flux over a sandy surface: a wind-tunnel investigation on the fetch effect. *Geomorphology* 57: 117–127. DOI: 10.1016/S0169-555X(03)00087-4
- Dong Z, Wang H, Liu X, Wang X. 2004b.** A wind-tunnel investigation of the influences of fetch length on the flux profile of a sand cloud blowing over a gravel surface. *Earth Surf. Proc. Landforms* 29: 1613–1626. DOI: 10.1002/esp.1116
- Dong Z, Quian G. 2007.** Characterizing the height profile of the flux of wind eroded sediment. *Environ. Geol.* 51: 835845. Doi 10.1007/s00254006-0363-5.
- Elliot, D.L. 1979.** Adjustment and analysis of data for regional wind energy assessments. Proceedings of the Workshop on Wind Climate, November 12-13, Asheville, NC.
- Fryrear, D.W. 1986.** A field dust sampler. *J. Soil Water Cons.* 41: 117-120.
- Fryrear, D.W., A. Saleh, and J.D. Bilbro. 1998a.** A single event wind erosion model. *Trans. ASAE* 41:1369-1374.
- Fryrear, D.W., A. Saleh, J.D. Bilbro, H.M. Schomberg, J.E. Stout, and T.M. Zobeck. 1998b.** Revised Wind Erosion Equation (RWEQ). Wind Erosion and Water Conservation Research Unit, USDA-ARS-SPA Cropping Systems Research Laboratory. Technical Bulletin No. 1. <http://www.csrl.ars.usda.gov/wewc/rweq.htm>.
- Fryrear,D.W., Krammes, C.A., Williamson,D.L., Zobeck, T.M., 1994.** Computing the wind erosion fraction of soils. *Soil Water Conserv.* 49, 183–188.
- Fryrear, D.W., Sutherland, P.L., Davis, G., Hardee, G., Dollar, M. 2001.** Wind erosion estimates with WEQ and RWEQ. In: Stott, D.E., Mohtar, R.H., Steinhardt, G.C. (Eds.), *Sustaining the global farm. Selected papers from the 10th International Soil Conservation Organization Meeting held on may 24-29 1999 at Purdue University and the USDA - ARS National Soil Erosion Research Laboratory.*
- Fryrear D.W., Saleh A. 1993.** Field Wind Erosion: Vertical Distribution. *Soil Sci.* 155: 294–300.
- Funk, R., Skidmore, E.L., Hagen, L.J. 2004.** Comparison of wind erosion measurements in Germany with simulated soil losses by WEPS. *Environ. Modell. Soft.* 19:177-183.
- Gabel, D. 1993.** Einfluss vulkanischer Asche und Nutzung auf die Böden der Semiariden Pampa Argentiniens. Diplomarbeit in Allgemeine Agrarwissenschaften. Universität Hohenheim. Stuttgart. pp99.
- Gillette DA, Fryrear DW, Xiao JB, Stockton PH, Ono D, Helm PJ, Gill TE, Ley T. 1997.** Large scale variability of wind erosion mass flux rates at Owens Lake: vertical profiles

- of horizontal mass fluxes of wind eroded particles with diameter greater than 50 µm. *J. Geoph. Res.* 102: 25977–25987.
- Ginoux, P., Chin, M., Tegen, I., Prospero, J. M., Holben, B., Dubovik, O., Lin, S. J. 2001.** Sources and distributions of dust aerosols simulated with the GOCART model. *Journal of Geophysical Research-Atmospheres* 106 (D17), 20255–20273.
- Glave, A. 2006.** Influencia climática en el sudoeste bonaerense y sudeste de La Pampa. *Acaecer* (31) 360: 18-23.
- Goosens D, Offer ZY. 2000.** Wind tunnel and field calibration of six aeolian dust samplers. *Atmosph. Env.* 34, 1043:1057
- Hagen, L.J., Woodruff, N.P. 1973.** Air pollution from dust storms in the great plains. *Atmosph. Env.* 7, 323-332.
- Hagen, L.J., Skidmore, E. L., Saleh, A. 1992.** Wind erosion: prediction of aggregate abrasion coefficients. *Transactions Am. Soc. Agric. Ing.* 35(6):1847-1850.
- Hagen, L.J. 1997.** Wind erosion prediction system: erosion submodel. <http://www.weru.ksu.edu/symposium/proceed/hagen.pdf>
- Hagen, L.J. 2004.** Evaluation of the wind erosion prediction system (WEPS) erosion submodel on cropland fields. *Environ. Modell. Soft.* 19: 171-176.
- Jickells, T. 1995.** Atmospheric inputs of metals and nutrients to the oceans—their magnitude and effects. *Marine Chemistry* 48 (3–4), 199–214.
- Keyes, C.R. 1910.** Deflation and the relative efficiencies of erosional processes under conditions of aridity. *Bull. Geol. Soc. Am.* 21: 565-598.
- Kobayashi, K., Salam, U.N. 2000.** Comparing simulated and measured values using mean square deviation and its components. *Agron. J.* 92: 345-352.
- Levenberg K. 1944.** A method for the solution of certain problems in least squares. *Quart. Appl. Math.*, 2: 164–168.
- Li WY, Lü SH, Shen ZB. 2008.** Improvement and Application of the Similarity Saltation Model: Wind-Tunnel Experimental Investigation and Numerical Simulation of the Vertical Sand Mass Flux Distribution in the Saltation Layer. *Bound. Layer Meteor.*, 127: 313-332.
- López, M.V., de Dios Herrero, J.M., Hevia, G.G., Gracia, R., Buschiazzo, D.E. 2007.** Determination of the wind erodible fraction of soils using different methodologies. *Geoderma* 139: 407–411
- Lyles, L. 1975.** Possible effects of wind erosion on soil productivity. *J. Soil Water Conserv.* 30:279-283.

- Lyles, L. 1983.** Erosive wind energy distributions and climatic factors for the west. *J. Soil Water Conserv.* 38, 106-109.
- Lyles, L.; Tatarko, J. 1986.** Wind erosion effects on soil texture and organic matter. *J. Soil Water Conserv.*; 41:191-193.
- Mahowald, N.M., Baker, A. R., Bergametti, G., Brooks, N., Duce, R.A., Jickells, T. D., Kibilay, N., Prospero, J. M., Tegen, I. 2005.** Atmospheric global dust cycle and iron inputs to the ocean. *Global Biogeochemical Cycles* 19 (4), doi: 10.1029/2004GB002402
- Maitre, A., Bonneterre, V., Huillard, L., Sebatier, P., de Gaudemaris, R., 2006.** Impact of urban atmospheric pollution on coronary disease. *European Heart Journal* 27, 2275–228
- Marquardt D. 1963.** An algorithm for least squares estimation of non-linear parameters, *J. Soc. Ind. Appl. Math.* 11: 431–441.
- Mendez, M. Buschiazza, D. E. 2008.** Canopy and residue cover effects on wind erosion of an Haplustoll in a semiarid environment of Argentina. *Soil Sci.*. 173: 468-469.
- Mendez, M.J. 2009.** Medición y predicción de la erosión eólica en la región semiárida pampeana. Tesis de doctorado. Universidad Nacional del Sur. 136pp.
- Mendez, M. J., Buschiazza, D.E. 2009.** Wind erosion risk in agricultural soils under different tillage systems in the semiarid Pampas of Argentina. *Soil and Tillage Research* 106: 311-316.
- Michelena, O. R.; Irurtia, C. B. 1995.** Susceptibility of soil to wind erosion in La Pampa Province, Argentina. *Arid Soil Res. Rehab.* 9:227-234.
- Middleton, N., Thomas, D. 1997.** World Atlas of Desertification. Publicado para UNEP por Arnold Publ. Segunda edición, Londres, 182pp.
- Namikas SL. 2003.** Field measurement and numerical modelling of aeolian mass flux distributions on a sandy beach. *Sedimentology* 50: 303–326.
- Nash JE, Sutcliffe JV. 1970.** River flow forecasting through conceptual models. Part I –A discussion of principles. *J Hydrol.* 10: 282–290.
- Ni J.R., Li Z.S., Mendoza C. 2002.** Vertical profiles of aeolian sand mass flux. *Geomorphology* 49: 205 – 218.
- Pope, C.A., Dockery, D.W., 2006.** Health effects of fine particulate air pollution: lines that connect. *Journal of Waste Management Association* 56, 709–742.
- Potter, K.N. and Zobeck, T.M., 1990.** Estimation of soil microrelief. *Trans. ASAE* 33: 156–161.

- Quiroga, A.R., M. Monsalvo, D.E. Buschiazzo, y E. Adema. 1996.** Labranzas en la región semiárida pampeana central. p. 81-92. En Buschiazzo, D.E., J.L. Panigatti, y F.J. Babinec (eds.) *Labranzas en la región semiárida Argentina*. INTA Centro Regional La Pampa-San Luis y Secretaría de Agricultura Pesca y Alimentación, Santa Rosa, La Pampa, Argentina.
- Reich, P., Eswaran, H., Beinroth, F. 2001.** Global dimensions of vulnerability to wind and water erosion. En: Stott, D.E., Mohtar, R.H., Steinhadt, G.C. (eds.) *Sustaining the global farm. Selected papers from the 10th International Soil Conservation Organization Meeting*. 24-29, 1999.
- Rocca, J.R., Redolfi, E.R., Terzariol, E.R. 2006.** Características geotécnicas de los loess de Argentina. *Revista Internacional de Desastres Naturales, Accidentes e Infraestructura Civil* 6:149-166.
- Romberg W. 1955.** Vereinfachte numerische Integration. *Norske Videnskabers Selskab Forhandlinger* 28: 30–36
- Rostagno, C. M., Chartier, M. P., Degorgue, G. 2008.** Plantas con raíces expuestas y pavimentos de desierto como indicadores de la erosión de los suelos en el NE de la Patagonia
- Saleh, A. 1993.** Soil surface roughness measurement: Chain method. *J. Soil Water Conserv.* 48: 527-529.
- Saleh A., Fryrear D. W. 1998.** En: *Revised Wind Erosion Equation (RWEQ)*. Wind Erosion and Water Conservation Research Unit, USDA-ARS-SPA Cropping Systems Research Laboratory. Technical Bulletin No. 1. <http://www.csrl.ars.usda.gov/wewc/rweq.htm>.
- Samani, Z.A., Pessarakli, M. 1986.** Estimating potential crop evapotranspiration with minimum data in Arizona. *Transactions ASAE* 29:522-524.
- Shao Y, Raupach MR. 1992.** The Overshoot and Equilibration of Saltation. *J. Geoph. Res.* 97: 20559–20564.
- Shao Y, McTainsh GH, Leys JF, Raupach MR. 1993.** Efficiency of sediment samplers for wind erosion measurement. *Aust. J. Soil Res.* 31: 519–532.
- Shao Y. 2005.** A similarity theory for saltation and application to aeolian mass flux. *Boundary Layer Meteor.* 115: 319 – 338. DOI: 10.1007/s10546-004-4632-0
- Skidmore, E.L. 1965.** Assessing wind erosion forces: Directions and relative magnitudes. *Soil Sci. Soc. Am. Proc.* 29, 602-608.

- Skidmore, E.L., Woodruff, N.P. 1968.** Wind erosion forces in the United States and their use in predicting soil loss. USDA ARS Agriculture Handbook Nº 346, 42pp, Abril 1968.
- Skidmore, E.L., Fisher, P.S. Woodruff, N.P. 1970.** Computer equation aids wind erosion control. Crops and Soils 22: 19-20.
- Skidmore, E.L. 1986.** Wind erosion climatic erosivity. Climatic Change 9: 195-208.
- Skidmore, E. L. 1987.** Wind erosion direction factors as influenced by field shape and wind preponderance. Soil Sci, Soc. Am. J. 51: 198 – 202.
- Skidmore, E.L., Tatarko J. 1990.** Stochastic wind simulation for erosion modeling. Trans. ASAE. 33, 1893 – 1899.
- Skidmore, E. L., Nelson, R.G. 1992.** Small grain equivalent of mixed vegetation for wind erosion control and prediction. Agron. J. 84: 98-101.
- Skidmore, E.L., C. Liao, and S.J. van Donk. 2006.** Simulation of wind speed and direction from limited data. The 14th Conference of the International Soil Conservation Organisation, Marruecos, 14-19de mayo.
- Smith, R.M., Stamey, W.L. 1964.** Determining the range of tolerable erosion. Soil Sci. 100: 414-424.
- Sporcic, M., Nelson, L. 2002.** Wind erosion equation. Use of Microsoft Excel spreadsheet. Technical notes, U. S. Department of Agriculture, Natural Resources Conservation Service, Agronomy – 55.
- Sterk G, Raats PAC. 1996.** Comparison of models describing the vertical distribution of wind eroded sediment. Soil Sci. Soc. Am. J. 60: 1914-1919.
- Stetler, L.D., Saxton, K.E., 1997.** Analysis of wind data used for predicting soil erosion. In: Proceedings of the Wind Erosion: an International Symposium/Workshop, 3–5 June 1997. Manhattan, Kansas: USDA-ARS.
- Stout JE, Fryrear DW. 1989.** Performance of a windblown particle sampler. Transactions ASAE 32: 2041-2045.
- Stout J.E., Zobeck, T.M. 1996.** The Wolfforth field experiment: A wind erosion study. Soil Sci. 161, 616-632.
- Stroosnijder L. 2005.** Measurement of erosion: is it possible? Catena 64: 162–173.
- Thorntwaite, C.W. 1931.** Climates of North America according to a new classification. Geogr. Rev. 25, 633-655.

- Torres, C. G.; Fernández, G. S. 1996.** Erosión actual en los suelos de la puna de Jujuy, Argentina. Actas del XV Congreso Argentino de la Ciencia del Suelo, Santa Rosa, La Pampa, Argentina. pp. 219-220.
- Toy, T. J., G. R. Foster, and K. G. Renard. 2002.** Soil Erosion: Processes, Prediction, Measurement, and Control. John Wiley & Sons, New York. 352pp.
- Udden, J.A. 1894.** Erosion, transportation, and sedimentation performed by the atmosphere. Journal of Geology 2: 318-331.
- Van Pelt, R.S., Zobeck, T.M. 2004.** Validation of the Wind Erosion Equation (WEQ) for discrete periods. Environmental modelling and software 19: 199-203.
- Van Pelt, R. S., Zobeck, T.M., Potter, K.N., Stout, J. E., Popham, T.W. 2004.** Validation of the wind erosion stochastic simulator (WESS) and the revised wind erosion equation (RWEQ) for single events. Environmental modelling and software 19: 191-198.
- Vergara, G.T., Casagrande, G.A. 2002.** Estadísticas agro climáticas de la Facultad de Agronomía, Santa Rosa, La Pampa, Argentina. Rev. Fac. Agron. 13: 74-78.
- Visser, S. M., Sterk, G., Karssenberg, D. 2003.** Wind erosion modelling in a Sahelian environment. Environmental modelling and software 20: 69-84.
- Vories ED, Fryrear DW. 1991.** Vertical distribution of wind eroded soil over a smooth, bare field. Transactions ASAE 34: 1763-1768.
- Wagner, L.E., Tatarko, J., Skidmore, E.L. 1992.** WIND-GEN: A statistical database and generator for wind data. Transactions ASAE XX: paginas
- Walkley A, Black IA. 1934.** An examination of Degtjareff method for determining soil organic matter and a proposed modification of the chromic acid titration method. Soil Sci. 37: 29-37.
- Williams G. 1964.** Some aspects of the eolian saltation load. Sedimentology 3: 257–287.
- Woodruff, N. P. 1965.** Wind-blown soil abrasive injuries to winter wheat plants. Agron. J. 48:499-504.
- Woodruff, N.P., Siddoway, F.H. 1965.** A wind erosion equation. Soil Sci. Soc. Am. Proc. 29, 602-608.
- Woodruff, N.P., Armbrust, D.V. 1968.** A monthly climatic factor for the Wind Erosion Equation. J. Soil Water Cons. 23, 103-104.
- Yin, S., Xie, Y., Nearing, M.A., Wang, C. 2007.** Estimation of rainfall erosivity using 5- to 60-minute fixed-interval rainfall data from China. Catena 70: 306-312.

- Zanotti, N.; Buschiazzo, D. E. 1997.** Extracción histórica de nitrógeno y fósforo por cultivos de cosecha en la Región Semiárida Pampeana: su incidencia económica. 18 Reunión de la Asociación Argentina de Ecología. Facultad de Agronomía, UBA. 21-23 de abril de 1997. Buenos Aires. pp. 131.
- Zheng X, He L, Wu J. 2004.** Vertical profiles of mass flux for windblown sand movement at steady state. *J. Geoph. Res.* 109: paginas.
- Zingg A.W., Woodruff, N.P. 1951.** Calibration of a portable wind tunnel for the simple/determination of roughness and drag on field surfaces. *Agron. J.* 43: 191–193.
- Zingg, A.W. 1953.** Wind tunnel studies of the movement of sedimentary material. Proceedings of the 5th Hydraulic Conference. Iowa Institute Hydraulic Bulletin 34, 111-135.
- Zobeck TM. 2002.** Field measurement of erosion by wind. In *Encyclopedia of Soil Science*. Lal R. (ed.). Marcel Dekker, New York: 503-507.
- Zobeck TM, Sterk G, Funk R, Rajot JL, Stout. JE, Van Pelt RS. 2003.** Measurement and data analysis methods for field scale wind erosion studies and model validation. *Earth Surf. Proc. Landforms* 28, 1163–1188.