tions were essential for significant control. More recently, picloram has been shown to be most effective (Gesink et al. 1973, Schmutz and Little 1970). Application rates ranging from 0.25-1 lb/acre ai. for picloram pellets and liquid gives effective control (the higher rates are required on heavier soils). Low rates of picloram in combination with other herbicides have also proven effective and less expensive. Picloram at 0.25 lb/acre in combination with 2,4-D at 1 lb/acre, tryclopyr at 0.4 lb/acre, and dicamba at 0.25 lb/acre have given kill rates greater than 95% (Jacoby et al. 1982, Sosebee et al. 1982a). A good kill can be obtained anytime the plant is actively growing but more consistent results have been obtained at the end of the flowering period when carbohydrates translocate into the crown and roots for storage (Sosebee et al. 1982b). Tebuthiuron at 0.5-1 lb/acre is also effective (Sosebee et al. 1982a) but the plant takes 1-2 years to die.

Literature Cited

Dollahite, J.W., and W.V. Anthony. 1957. Poisoning of cattle with *Gutierrezia microcephala*, a perennial broomweed. J. Amer. Vet. Med. Ass. 130:525-530.

Dollahite, J.W., T. Shaver, and B.J. Camp. 1962. Injected saponins as abortificients. J. Amer. Vet. Res. 23:1261-1263.

Foster, D.E., D.N. Ueckert, and C.J. Deloach. 1981. Insects associated with broom snakeweed *(Xanthocephalum sarothrae)* and threadleaf snakeweed *(X. microcephala)* in west Texas and eastern New Mexico. J. Range Manage. 34:446-454.

Gesink, R.W., H.P. Alley, and G.A. Lee. 1973. Vegetative response to chemical control of broom snakeweed on a blue grama range. J. Range Manage. 26:139-143.

Jacoby, P.W. Jr., C.H. Meadows, M.A. Foster, and T.G. Welch. 1982. Control of broom snakeweed *(Xanthocephalum sarothae)* with fall application of foliar herbicides. Texas Agr. Exp. Sta. Prog. Rep. 4031.

Jameson, D.A. 1970. Value of broom snakeweed as a range condition indicator. J. Range Manage. 23:302-304.

Lane, M. 1985. Taxonomy of *Gutierrezia* Lag. (Compositeae: Astereae) in North America. Systemetic Botany 10: (in press).

Mathews, F.P. 1936. The toxicity of broomweed *(Gutierrezia microcephala)* for sheep, cattle, and goats. J. Amer. Vet. Med. Ass. 88:55-61.

Mayeaux, H.S. Jr. 1983. Effects of soil texture and seed placement or emergence of four sub shrubs. Weed Sci. 31:380-384.

McDaniel, K.C., R.D. Pieper, and G.B. Donart. 1982. Grass response following thinning of broom snakeweed. J. Range Manage. 35:219-222.

Molyneux, R.J., K.L. Stevens, L.F. James. 1980. Chemistry of toxic plants. Volatile constituents of broomweed *(Gutierrezia sarothroe)*. J. Agr. Food Chem. 28:1332-1333.

Parker, M.A. 1982. Association with mature plants protects seedlings from predation in an arid grassland shrub *(Gutierrezia microcephala)*. Oecologia 53:276-280.

Schmutz, E.M., and D.E. Little. 1970. Effects of 2,4,5-T and picloram on broom snakeweed in Arizona. J. Range Manage. 23:354-357.

Sosebee, R.E., W.W. Seipp, D.J. Bedunah, R. Henard. 1982a. Herbicide control of broom snakeweed. Range and Wildlife Dept., Texas Tech Univ Noxious Brush and Weed Control Research Highlights. Vol. 13:18.

Sosebee, R.E., W.W. Seipp, and J. Alliney. 1982b. Effect of timing of herbicide application on broom snakeweed control. Range and Wildlife Dept. Texas Tech Univ. Noxious Brush and Weed Control Research Highlights. Vol. 13:19.

Sperry, O.E., and E.D. Robison. 1963. Chemical control of perennial broomweed. Texas Agr. Exp. Sta. Prog. Rep. 2273.

Ueckert, D.N. 1979. Broom snakeweed: Effect on shortgrass forage production and soil water depletion. J. Range Manage. 32:216-220.

A Square of Slate

By Dick H. Hart

We learned our letters in a country school;
Not on a "chalkboard" but on honest slate.
And chalked on it as well those time-worn rules
Which taught us, like our fathers, to relate
The world to values that we held to be
As sturdy as that slate.

The school is gone, replaced
By tasseled ranks of corn. Each fall
Cicadas rasp and buzz
Where children called, and all
That's left a square of slate
Upon my office wall.

But no, not all; the values have endured
And we, beneath our graying brows, appraise
Thru eyes of boys and girls of decades past
The world in its contemporary phase
And measure it against the lessons learned
In country schoolhouse days.

Frasier's Philosophy

Everyone has had time to reflect on the record-setting Annual Meeting held at Salt Lake City. If you were there you were a part of it. If you did not have the opportunity to attend, then you have been told what a great meeting you missed. I was pleased to see the number of young people and new members actively participating on various committees and functions. Participation at the Annual Meetings is great, but don't forget the Section and Chapter levels of the SRM. Participation in activities at these levels is just as important and you can have a major impact on the promotion of range management. I challenge anyone who is having trouble in finding some activity to participate in to go out and recruit 5 new members, then ask your Section President if there is something you can work on. I would bet that he will welcome you with a smile. If that doesn't work let me know. There is something for everyone who is willing to work.

"Happiness is not a matter of good fortune or worldly possessions. It comes from appreciating what we have instead of being miserable about what we do not have".

From: *Bits & Pieces*, The Economic Press, Fairfield, New Jersey.