

6-26-34

Revised for new project -
changed on page (2)

Plan of Action for Liver Fluke Control
in Utah

Areas Involved

The following Counties are known to be infested: the first listed is heaviest infested and each one following less so: Duchesne, Beaver, Sevier, Utah, Cache, Garfield, Summit, Uintah, Weber, Wasatch, Sanpete, Piute, Davis, Box Elder, Millard, Salt Lake, Morgan, Rich, Kane, Tooele and Wayne. There are indications that other Counties in Utah may be infested areas and these areas will have to be inspected and cleaned up if found infested.

Organization

The Zoological Division will direct the campaign for Utah. Each county will have a county supervisor, the county agent, Veterinarian or other suitable person, who will follow out instructions from the State leader. The county supervisor will have under his jurisdiction one foreman to each 20 men or gang. The State supervising officer will hold the county supervising officer responsible for results in his county.

Snails will be destroyed by copper sulphate or by filling or draining wet areas as indicated. In sulphating, no distinction will be made between the right and left-handed snails, but all snails within the range of operation will be destroyed. Before starting the campaign the county supervising officer will collect or have collected 100 snails of the representative sorts from each square mile of terrain. These snails will be placed alive in a jar containing Spanish moss which is damp, not wet, the the cover of the jar perforated, the jar packed in a container and

promptly mailed to the Zoological Division at Washington, where these snails will be examined for any infestation that they may carry. Two or four days after sulphating an area, the county supervising officer will go over the area with the workmen and will collect from each workman's area 100 snails which will be placed in water to see if any are alive. If any are found alive, the immediate area of collection and surrounding area will again be treated. The collection of these snails may be delegated by the county supervising office to other competent supervisors under his direction. The State supervisory officer will make similar checks from time to time.

Snail destruction will be undertaken only when weather conditions are favorable and not at seasons of the year when snails will be out of range of the measures used to destroy them. Livestock owners will be encouraged to have sheep treated with carbon tetrachloride and cattle treated when conditions are favorable, but not when they are unfavorable as in the case of milking animals. Snail destruction campaigns will be planned to cover snail infested areas, such as swamps, springs and slow running streams. Mountain streams where trout are stocked or such streams as the Fish and Game Department designate as a trout stream will be avoided, except in that some of the seeping banks and back waters adjacent thereto will be broadcasted with Copper Sulphate. In lakes stocked with trout the muddy edges only will be treated.

Reports and Maps

Local supervisors will report to the county supervisors once a week or oftener the following information: Location of all activities with names of farms, owners of property, or similar

identification, distance and direction from nearest post office or other map points, estimate of area treated, number of individuals employed, costs in terms of total cost per acre and costs per hour of unit employed, duration of the work, results of the collection of presumable dead snails, and any other information of value. These reports will be summarized by the county supervising officer and sent to the State supervising officer. The State supervising officer will summarize all county reports, retain one, forward one to the Zoological Division at Washington.

All county supervising officers will supply themselves with topographical survey maps of the county, these maps to cover the area involved in their work, and will keep on these maps a detailed record of all areas examined and worked. State supervising officer will compile a summary of these maps on a State map, keeping up-to-date a record on a map at headquarters, and when work is completed in a county, will furnish one copy of the map showing existing status to the Zoological Division at Washington.

Individual Responsibility

The State supervising officer will be responsible for the survey of fluke areas within the State, for the selection of county supervising officers, for the purchase of copper sulphate by the ton for delivery at such central points and on lines of communication as will be most satisfactory in delivering quantities needed by each county. He will also be responsible for training the county supervising officers and supplying technical information in regard to flukes and snails whenever necessary. He will be responsible for check-ups from time to time in all

counties involved. He will be responsible for the reports and maps called for. He will determine when the work in each county is to begin on the basis of favorable climatic conditions and our general principals in liver fluke control. He will undertake to secure the cooperation of the Forest Service on the basis of supplying copper sulphate, provided the Forest Service will secure the services of the Civilian Conservation Corp if it is found that funds are insufficient for hiring labor for cleaning up forest lands. He will also undertake to secure the cooperation of the Indian Service for cleaning up Indian Lands.

The Zoological Division will be responsible for supplying technical information when called upon, identification of cercariae found in snails sent to Washington and identification of the snails.

Proposed Initiation of the Campaign

The work will be started in Beaver County moving to Garfield County and the Uintah Basin, which takes in both Duchesne and Uintah Counties. Other counties will be started as fast as arrangements can be made, eventually making a clean sweep of the State. The work will have to be modified from county to county and time to time and it will be necessary for everyone to exercise ingenuity and initiative, and to cooperate to the greatest possible extent with all forces that might be utilized.

(5)

State and county supervising officers will use all legitimate avenues of publicity, the Extension Service, Veterinary services, Newspapers, Radio, etc., to explain the object and nature of the work, and to facilitate cooperation. Cooperation will also be secured by using local Extension agents, Veterinarians, etc., in making contacts with farmers whose premises are infected.

Respectfully submitted
By

L. E. Swanson, Junior Zoologist.
Bureau of Animal Industry.

Signed:-----