

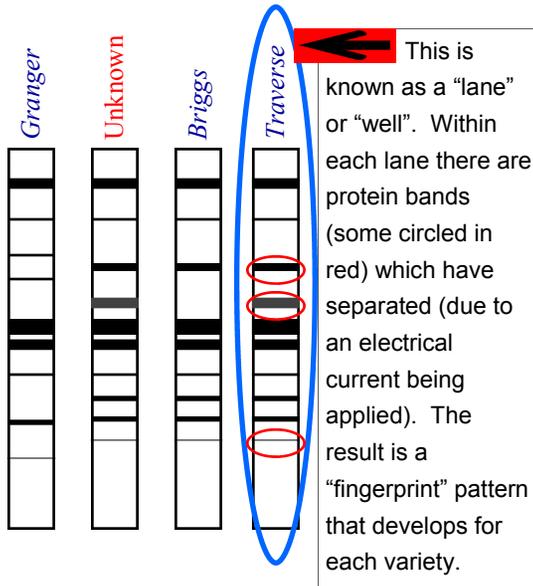


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## How to use and read an Electrophoresis Gel

Electrophoresis testing at SDSU utilizes the proteins in a seed to obtain a “fingerprint” pattern (unique for each variety) and compare it to a check sample (known variety) to verify or identify the variety of the sample. Below is a simplified example and explanation using HRS wheat variety names.



Within each lane are protein bands (each horizontal band is a different protein). Bands in lanes are compared or matched (using band size, location, and intensity) to determine or verify varietal identification of the unknown sample submitted. In this example you can see that our unknown matches the variety “Traverse” (showing differences from other spring wheat varieties listed).

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### To submit samples, send to:

#### By US Postal Service:

SDSU Seed Testing Lab  
Box 2207A  
AG Hall 244  
Brookings, SD 57007

#### By UPS/FEDEX/SPEE-DEE:

SDSU Seed Testing Lab  
SDSU Innovation Campus  
2380 Research Parkway  
Brookings, SD 57006

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# SDSU

## Seed Testing Laboratory

*Varietal Verification or Identification using Electrophoresis testing*



Seed Testing Laboratory  
SDSU Innovation Campus  
2380 Research Parkway  
Brookings, SD 57006

Tel. 605-688-4589  
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