

How Does Hop Latent Viroid HLVD Spread References

1. Title: How Does Hop Latent Viroid (HLVD) Spread?
 - a. <https://images.squarespace-cdn.com/content/v1/623b5f3d4c76e5257401527d/2df6b682-7810-4ab0-bc5f-b03bc1fea842/2BEHBFY.jpeg>
 - i. Resources
 - b. Dr. Tessa not as detailed as the other one
 - c. Grow More Stress Less. (2022, March 7). *NEW CANNABIS VIROID- Hop Latent Viroid (HpLVd) with Dr. Tassa Saldi. PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=5QyYrukT6ko>
 - d. Medicinal Genomics. (2023, June 16). *HoP latent viroid in cannabis | Medicinal Genomics - Medicinal Genomics*.
<https://medicinalgenomics.com/hop-latent-viroid-in-cannabis/>
 - e. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - f. We The Growers. (2022, March 17). *Tassa Saldi, PhD – CoFounder and CEO of TUMI Genomics – E.11* [Video]. YouTube.
<https://www.youtube.com/watch?v=9JT2RjIkfGQ>
 - g. Medicinal Genomics. (2023c, July 19). *Preventing and Eliminating Hop Latent Viroid from Cannabis with Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=gBowmbl8o9s>
2. CannaMed23 Presentation
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
3. How Does it Spread
 - a. https://cdn11.bigcommerce.com/s-tjrce8etun/images/stencil/original/uploaded_images/how-and-when-to-prune-cannabis-for-maximum-yield.jpg
 - b. <https://i.ytimg.com/vi/pOIJek3YZr8/maxresdefault.jpg>
 - c. https://cdn.shopify.com/s/files/1/0083/1668/2358/files/skgrower_roots_480x480.jpg?v=1617921456
4. Potential Routs of Transmission
 - a. <https://moderncanna.com/wp-content/uploads/2023/04/HOP-LATENT-VIROID-Final--1024x601.png>
 - b.
5. Phloem Transmitted
 - a. https://upload.wikimedia.org/wikipedia/commons/6/6d/Xylem_and_phloem_diagram.svg
 - b. <https://thebiologynotes.com/wp-content/uploads/2020/09/Differences-Between-Xylem-and-Phloem-Xylem-vs-Phloem.jpg>
 - c.

6. Experiment Artificial Transmission
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
7. Experiment Root Transmission
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
8. Progression of infection
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. <https://www.researchgate.net/publication/320774523/figure/fig1/AS:960079385853953@1605912171313/Overview-of-bidirectional-communication-between-root-and-shoot-The-grafting-experiments.gif>
 - c.
9. Flowering can increase
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. https://cdn.pixabay.com/photo/2020/06/29/15/11/cannabis-5352989_1280.jpg
 - c.
10. Water transmitted
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. [https://gray-woio-prod.cdn.arcpublishing.com/resizer/n4eEuR_ECbPIX1boiICVsMY9wKA=/800x267/smart/filters:quality\(70\)/do0bihdskp9dy.cloudfront.net/02-14-2023/t_0b35c9579ef04bd0b7e081817c4c198d_name_Seed_to_sale_process_of_medical_cannabis_in_Mississippi.png](https://gray-woio-prod.cdn.arcpublishing.com/resizer/n4eEuR_ECbPIX1boiICVsMY9wKA=/800x267/smart/filters:quality(70)/do0bihdskp9dy.cloudfront.net/02-14-2023/t_0b35c9579ef04bd0b7e081817c4c198d_name_Seed_to_sale_process_of_medical_cannabis_in_Mississippi.png)
 - c.
11. Infected Mothers
 - a. https://www.morganmanagesmommyhood.com/wp-content/uploads/2020/09/Depositphotos_55140699_s-2019.jpg
 - b. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - c.
12. Seed Transmitted
 - a. https://cdn.pixabay.com/photo/2021/08/02/19/36/cannabis-seeds-6517690_640.jpg
 - b. https://www.zamnesia.com/img/cms/Grow-Guide/CMS563_GG287_what_are_cannabis_seedlings/new_12_12_2022/What-are-cannabis-seedlings.jpg

- c. https://cdn.pixabay.com/photo/2018/10/20/23/19/plant-3761994_1280.jpg
- 13. Present in Dry Flower
 - a. <https://www.mlive.com/resizer/y7UMyqnsEhNmZU3aMJTzhTCYa4w=/1280x0/smart/cloudfront-us-east-1.images.arcpublishing.com/advancelocal/NGO66ITQ7RGQ5NWD642RUUSOJQ.JPG>
 - b. https://www.nicepng.com/png/full/395-3956370_only-40-of-us-schools-offer-computer-science.png
 - c.
- 14. Glove Transmission
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. https://www.fullmeltbubble.com/gallery/files/3///IMG_5962Large.JPG
 - c. https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcRL2LjLn4WSwuULWBH4UjR-zl2LwnW2fQE_T0x6siBKcTmf8Y2c55w0KCHZKRIKRb7qVk&usqp=CAU
- 15. Leaf Transfer
 - a. https://img.freepik.com/premium-photo/marijuana-dried-cannabis-sativa-leaves-white_62856-5313.jpg
 - b.
- 16. Root Tissues
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. <https://girlsingreen.net/wp-content/uploads/2020/07/raizdemaconha-2.jpg>
 - c.
- 17. Male Flowers?
 - a. Medicinal Genomics. (2023a, June 8). *Understanding and Managing HOP latent viroid in cannabis - Zamir Punja, PhD* [Video]. YouTube.
<https://www.youtube.com/watch?v=xQTRWQuUCzY>
 - b. <https://i.cbc.ca/1.6483642.1654809932!/fileImage/httpImage/pollen-in-regina.jpg>
 - c.